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# Environmental Financial Advisory Board

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## SMALL COMMUNITY FINANCING STRATEGIES FOR ENVIRONMENTAL FACILITIES

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*The views and opinions expressed in this advisory do not represent those of the U.S. Environmental Protection Agency, nor are they intended to reflect consideration of other fiscal issues which may be overriding in terms of the direction of Administration domestic policy.*

**August 9, 1991**

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Mr. William K. Reilly  
Administrator  
U.S. Environmental Protection Agency  
Washington, DC 20460

AUG 09 1991

Dear Mr. Reilly:

We are very pleased to transmit to you this Advisory of the Environmental Financial Advisory Board (the Board). It examines financing strategies to improve the ability of small communities to provide environmental facilities and services. Because small communities generally have a more limited range of available financing strategies than larger communities, small community issues are one of the most pressing financial challenges to accomplishing the nation's environmental goals.

The Board has concluded that EPA must address the special challenges faced by small communities to ensure that they enjoy the same level of public health and environmental protection as larger communities. These small community financing strategies include:

- Improving coordination among small community financial assistance programs,
- Using bond banks to improve access to the bond market for small communities, and
- Improving financial assistance to small communities under Title VI SRFs.

I would like to thank Elizabeth Ytell, Chair of the Small Community Financing Strategies Workgroup for her leadership in keeping small community concerns at the forefront of the Board's deliberations and in framing this Advisory. I also want to acknowledge the helpful input of EPA's expert consultants to the EFAB (noted in Appendix E), particularly Ann Cole, EPA's Small Community Coordinator. On behalf of the entire Board, I would like to express to you our deep appreciation for the opportunity to assist EPA in addressing small community financing issues. We look forward to continuing our support and this dialogue in the future.

Respectively submitted,



Richard Torkelson  
Chair, Environmental Financial  
Advisory Board

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## **EXECUTIVE SUMMARY**

The Environmental Financial Advisory Board (the Board) was established in August 1989 to advise the Administrator on ways to encourage and facilitate investment in environmental facilities. Within the Board, the Small Community Financing Strategies Workgroup was formed to explore financing strategies to improve the ability of small communities to provide environmental facilities and services. This Advisory presents the analysis of the Board's Small Community Financing Strategies Workgroup.

### **BACKGROUND**

To ensure that small communities enjoy the same level of public health and environmental protection as larger communities, EPA must address the special challenges faced by small communities in complying with environmental regulations. Small communities generally have a more limited range of available financing strategies than larger communities. This occurs because larger communities benefit significantly from economies of scale, broader tax bases, and relatively easy access to capital markets. Environmental and public health expenditures on a per capita basis can be higher, while ability-to-pay often is lower in smaller communities.

The need for capital investment in new, upgraded, or expanded environmental facilities is increasing at the same time that federal financial assistance is declining. Small communities traditionally have relied on public subsidies from financial assistance programs to meet their environmental facility needs. Recognizing that subsidies are not a panacea for small communities, the Board has focused its attention on ways to make the best use of existing financial assistance programs, opportunities to expand the role of the private sector in leveraging small community assistance, and strategies to increase the self-sufficiency of small communities in financing environmental facilities.

### **FINANCING STRATEGIES FOR SMALL COMMUNITIES**

In this Advisory, the Board examines three financing strategies for small communities:

- Improving coordination among small community financial assistance programs,
- Using bond banks to improve access to the bond market for small communities, and
- Improving financial assistance to small communities under Title VI SRFs.

## **Improving coordination among small community financial assistance programs**

Recognizing that some small communities will require financial assistance to meet their environmental facility needs, the first strategy is for EPA to take a leadership role in improving coordination among small community financial assistance programs. A key part of this leadership role is ensuring that spending on small community environmental facilities adequately addresses environmental and public health needs and compliance with environmental regulations.

A number of public programs currently provide financial assistance to small communities for environmental infrastructure. These programs often are established for different purposes and their resources generally have decreased over the last decade due to fiscal constraints. Improved coordination among these programs would provide opportunities to leverage the available public funds to better meet small community environmental facility needs. Broadening the coordination efforts to include increased private sector participation could benefit small communities by expanding the range of available financing strategies.

## **Using bond banks to improve access to the bond market for small communities**

This strategy address one way to improve the self-sufficiency of small communities in financing environmental facilities. Bond banks help small communities obtain debt financing at reasonable rates through pooling small bond issues and by providing credit enhancements. By seeking wider use of bond banks to finance environmental facilities, EPA can make debt financing opportunities more available to small communities and help reduce their dependence on subsidized assistance.

## **Improving financial assistance to small communities under Title VI SRFs**

Under Title VI of the Clean Water Act, state revolving funds (SRFs) are being established to provide financial assistance to local communities, primarily in the form of loans for wastewater treatment facility construction. Small communities are experiencing problems under existing SRF programs, including difficulty gaining access to SRFs and inability to afford SRF loans even at low interest rates.

Two strategies are available to better meet small community environmental facility needs under the SRF program. First, EPA could consider seeking legislative change to Title VI of the Clean Water Act in order to implement actions such as a small community set-aside, a separate multi-media revolving fund exclusively for small communities, or extended loan terms for small communities. Second, EPA should actively encourage states to implement other actions to improve financial assistance to small communities under their current SRFs. Some states already have taken some of these actions, including varying interest rates based on ability-to-pay, providing supplemental state grants for hardship cases, and providing technical assistance to small communities.

## **I. INTRODUCTION**

Local governments play a major role in providing environmental services, including wastewater treatment, drinking water, and solid waste management. Total annualized local government costs to implement major environmental regulations are expected to increase from \$19.2 billion in 1987 to \$32.6 billion by the year 2000 (a 70 percent increase). Increases in local government costs are driven primarily by expenditures for wastewater treatment and by revisions to several environmental laws in recent years that establish broader and more stringent standards for drinking water treatment, and disposal of sewage sludge and solid waste.<sup>1</sup> While all local governments face the challenge of raising the necessary funds, small communities are expected to confront the greatest financing challenge to provide environmental and public health protection to their residents.

### **SMALL COMMUNITY FINANCING PROBLEMS**

Small communities help shape the debate over financing strategies to meet the nation's environmental goals because they generally have more limited financial capability and consequently a more limited range of available financing strategies than larger communities. Small communities face special financing problems, many of which are linked to their inability to benefit from the economies of scale available to larger communities.<sup>2</sup> In general, small communities confront three types of financing problems in providing environmental services:

- Lack of access to capital can constrain or defer investment in new or expanded environmental facilities.
- Capital costs of facility construction can exceed the financial capability of many small communities.
- Some low-income and/or very small communities may not be able to afford the costs of operating an environmental facility properly.

Underlying these financing problems are a number of factors that characterize small communities:

- Higher unit costs because small facilities lack the economies of scale that can be achieved by larger facilities.
- An inadequate customer base to set user charges that support the full cost of providing environmental services.
- A low credit rating or being unrated makes it difficult to issue debt or raises the interest costs of debt financing.
- Higher fixed costs of small bond issues (e.g., legal and underwriters fees) for those small communities that can obtain debt financing.

- Lower household incomes, which reduces the ability of community residents to pay increased user charges, regardless of facility size.

Several studies have examined the problem of financing infrastructure facilities in small communities. In 1988, the National Council on Public Works Improvement concluded in *Fragile Foundations: A Report on America's Public Works* that smaller public works systems face major financial and management problems and have special needs that must be addressed if small facilities are to provide the same services as larger facilities.<sup>3</sup> A 1990 report by the U.S. Congress, Office of Technology Assessment (OTA), *Rebuilding the Foundations: A Special Report on State and Local Public Works Financing and Management*, found that small, rural communities and low-growth jurisdictions have limited or no access to capital and that residents of these communities have limited ability to pay higher user fees. OTA concluded that such communities face especially severe problems in financing environmental public works and are not likely to achieve compliance with EPA standards without increased state or federal assistance.<sup>4</sup>

A recent EPA report compared the impact on households, for different city size categories, of local government expenditures to comply with environmental regulations. This study concluded that the average annual household cost of implementing current environmental regulations will be much higher in smaller cities than large and medium-sized cities through the year 2000. In the smallest cities (less than 500 population), annual household costs to maintain current environmental programs are expected to increase, on average, by about 88 percent, from \$670 in 1987 to \$1,263 in 2000. For medium-sized cities (populations from 50,000 to 100,000), annual household costs will increase by 38 percent, on average from \$373 in 1987 to \$515 in 2000. Annual household costs in large cities (populations greater than 500,000) will increase by 36 percent, from \$393 in 1987 to \$533 in 2000. The cost of complying with new environmental regulations will add to these increases in average annual household costs, representing an additional \$317 for the smallest cities, \$24 for medium-sized cities, and \$93 for large cities by the year 2000.<sup>5</sup>

## **SMALL COMMUNITY CAPITAL NEEDS**

The extent of small community financing problems is evidenced by estimates of capital needs. Needs estimates represent only the capital costs of constructing and upgrading environmental facilities and do not include operation and maintenance (O&M) costs.

Preliminary estimates of small community capital needs for wastewater treatment, drinking water treatment, and solid waste management were developed for this Advisory based on various estimates prepared by EPA in *Environmental Investments: The Cost of a Clean Environment*.<sup>6</sup> This report provided estimates of local government capital costs for implementing existing and new regulations for point source water pollution control, drinking water treatment, and solid waste management, under a present implementation scenario, during the 10-year period from 1991 to 2000. Local government capital costs for point source water pollution control represent local wastewater treatment and sewerage costs, excluding federal and state grants to local governments. Local government drinking water capital costs represent costs associated with treating public

drinking water supplies, excluding costs directly related to supplying public drinking water (e.g., costs for water mains). For drinking water treatment capital costs, approximately 40 percent are water treatment expenditures related to compliance with the Safe Drinking Water Act (SDWA).<sup>7</sup> Local government solid waste capital costs represent expenditures for the collection and disposal of solid waste and compliance with federal standards for solid waste disposal facilities.

Capital costs to communities under 2,500 population are assumed to be 13.7 percent of total capital costs for wastewater treatment, 30.5 percent for drinking water treatment, and 5.9 percent for solid waste management.<sup>8</sup> These percentages were applied to the local government capital cost data described above to estimate small community capital needs by media for the 10-year period from 1991 to 2000 (see Table 1-1).

EPA's *Municipal Sector Study* estimated that 21 to 30 percent of small communities (less than 2,500 population) would have difficulty using revenue bonds, general obligation bonds, or bank loans to finance environmental infrastructure projects.<sup>9</sup> Table 1-1 also gives estimates of capital needs for these "financially constrained" small communities, assuming that 30 percent of small communities are financially constrained.

Table 1-1. Preliminary Estimates of Small Community (less than 2,500 population)  
Capital Needs for the 10-year Period from 1991 to 2000  
(in billions of 1986 dollars)

Media	Small Community Capital Needs	Financially Constrained Small Communities
Wastewater Treatment*	\$3.2	\$1.0
Drinking Water Treatment**	\$5.5	\$1.6
Solid Waste Management	\$1.3	\$0.4
Total	\$10.0	\$3.0

\* Excludes federal and state grants to local governments.

\*\* Approximately 40 percent of capital costs are related to SDWA compliance.  
Excludes costs associated with supplying drinking water.

## SMALL COMMUNITY COMPLIANCE PROBLEMS

Small communities have chronic and high rates of noncompliance with environmental regulations. For small communities, noncompliance often is evidence of financing problems although managerial and technological problems also may contribute to small community noncompliance.

EPA's Office of Drinking Water has the most complete compliance data on small facilities. Nearly 70 percent of all violations of the Safe Drinking Water Act occur in very small community drinking water systems (i.e., those serving between 25 and 500 persons). Around two-thirds of the nearly 60,000 community drinking water systems in the United States serve less than 500 persons, but these very small systems serve only 2.5 percent of the nation's population.<sup>10</sup>

Recent environmental legislation has expanded the range of environmental concerns that must be addressed by local governments and has increased the stringency of environmental standards. The cumulative costs of new and more stringent environmental requirements will only serve to exacerbate the difficulties that small communities already face in complying with existing requirements.

## **THE DIVERSITY OF SMALL COMMUNITIES**

While the typical small community generally experiences the financing problems described above, it is important to recognize the diversity that exists among small communities. First, small communities can vary widely in financial condition. A broad range of financial capabilities exists from affluent, mostly suburban, small communities that have favorable credit ratings to issue debt to true hardship cases that would require substantial financial assistance.<sup>11</sup> Second, small communities represent a range of population sizes and densities. While the distinction as "small" typically is based on the population served by a facility, there is no widely accepted definition regarding "how small is small."

To provide some perspective on the number of small communities in the United States and the proportion of the population residing in those communities, Table 1-2 presents the most recent census data showing the distribution of the U.S. population by size of place.<sup>12</sup> Around 98 million persons, or 43 percent of the U.S. population, resided in communities of less than 10,000 inhabitants in 1980. About 74 million persons, or 32 percent of the U.S. population, resided in communities of less than 2,500 inhabitants. Table 1-3 shows population data for communities under 10,000 population by major census region.<sup>13</sup> In 1980, the southern United States had the greatest number of persons residing in these smaller communities.

Table 1-2. Population of the United States by Size of Place

Size of Place	Number of Places	Percent of Total Places	Population (millions)	Percent of Total Population
<b>URBAN:</b>				
100,000 or more	173	0.8	57.5	25.4
50,000 - 100,000	290	1.3	19.8	8.7
25,000 - 50,000	675	3.0	23.4	10.3
10,000 - 25,000	1,765	7.8	27.6	12.2
5,000 - 10,000	2,181	9.7	15.4	6.8
2,500 - 5,000	2,665	11.8	9.4	4.1
Less than 2,500	1,016	4.5	1.3	0.6
Other urban			12.7	5.6
<b>RURAL:</b>				
1,000 - 2,500	4,434	19.7	7.0	3.1
Less than 1,000	9,330	41.4	3.9	1.7
Other rural			48.6	21.4
<b>TOTAL:</b>	<b>22,529</b>	<b>100</b>	<b>226.5</b>	<b>100</b>
Source: 1980 Census of Population				

Table 1-3. Population in Smaller Places (10,000 or less) by Census Region

Size of Place	Population (in millions)				Total U.S.
	Northeast	North Central	South	West	
<b>URBAN:</b>					
5,000 - 10,000	3.7	3.8	5.4	2.5	15.4
2,500 - 5,000	1.8	2.6	3.5	1.4	9.4
Less than 2,500	0.4	0.3	0.5	0.1	1.3
Other urban	4.1	2.7	3.9	1.9	12.7
<b>RURAL:</b>					
1,000 - 2,500	1.3	2.4	2.5	0.9	7.0
Less than 1,000	0.3	1.9	1.3	0.4	3.9
Other rural	8.7	13.1	21.2	5.6	48.6
<b>TOTAL:</b>	20.3	26.8	38.3	12.8	98.3
Source: 1980 Census of Population					

## **ADDRESSING SMALL COMMUNITY FINANCIAL CAPABILITY TO MEET ENVIRONMENTAL GOALS**

The Environmental Financial Advisory Board (the Board) is charged with identifying and examining financing strategies to advance the pursuit of environmental goals as articulated in federal environmental statutes. Within the Board, the Small Community Financing Strategies Workgroup is charged with exploring what financing strategies can be implemented to improve the ability of small communities to provide environmental facilities and services.

After examining small community financing problems, the Board has identified two primary issues that lead to special challenges for small communities – access to capital and affordability. Lacking access to capital for construction or upgrading environmental facilities, small communities will have difficulty complying with environmental regulations. The affordability issue relates to a community's ability to pay for needed environmental facilities. Affordability is an important concern in determining the type, amount, and conditions of financial assistance that could be provided to help small communities meet their environmental facility needs.

The Board has considered a range of alternative financing strategies for small communities as well as new institutional opportunities to help small communities meet the challenge of financing needed environmental services. In this Advisory, the Board considers three small community financing strategies:

- Improving coordination among small community financial assistance programs,
- Using bond banks to improve access to the bond market for small communities, and
- Improving financial assistance to small communities under Title VI SRFs.



## **II. IMPROVING COORDINATION AMONG SMALL COMMUNITY FINANCIAL ASSISTANCE PROGRAMS**

The Board has concluded that opportunities exist where improved coordination among small community financial assistance programs can help small communities meet their environmental facility needs. A number of public programs currently provide financial assistance to small or low-income communities or rural areas for wastewater and drinking water facility construction or improvements. To provide the maximum benefit to small communities, the Board found that coordination among financial assistance programs should be broadened to include both public and private sector sources of capital. The existence of multiple funding sources, both public and private, expands the overall level of funding available for small environmental facilities and adds flexibility in developing financing strategies for small communities. By seeking improved coordination among financial assistance programs, EPA can help small communities find the most appropriate funding source or help combine existing funding sources to leverage the available funds.

Recognizing that EPA has a mandate to ensure that small facilities achieve compliance with federal environmental regulations, EPA should seek to structure coordination among financial assistance programs to foster agreement on environmental facility needs and overall priorities. The Board believes that EPA can play a significant role in ensuring that spending on small community environmental facilities emphasizes environmental and public health needs and regulatory requirements.

### **A. STATEMENT OF THE ISSUE**

The Board examined programs that provide financial assistance to small or low-income communities or rural areas for environmental infrastructure projects. These programs include financial assistance programs administered by federal agencies, by state agencies where a federal program is administered at the state level, and a federally chartered financial institution, CoBank, which plays an important role in rural areas. These sources of financial assistance to small communities are listed below (see Appendix A for a more detailed description of each program).

- **State Revolving Fund (SRF) Program.** The SRF is administered by the states and funded by capitalization grants from EPA and state matching funds. SRFs primarily award loans to local governments for construction of wastewater treatment facilities.
- **Water and Waste Disposal Loan and Grant Program.** This program is administered by the Farmers Home Administration (FmHA), U.S. Department of Agriculture. The FmHA Water and Waste Disposal Program provides loans, grants, and loan guarantees primarily for water and wastewater systems that serve rural areas or communities under 10,000 population. The 1990 Farm Bill created the Rural Development Administration (RDA) and requires transfer of the FmHA Water and Waste Disposal Program to the RDA.

- **Public Works and Development Facilities Grant Program.** Administered by the Economic Development Administration (EDA), U.S. Department of Commerce, this program awards grants to finance construction of public works and development facilities (including water and wastewater facilities) to promote long-term economic development.
- **Community Development Block Grants (CDBG)/Small Cities Program.** The CDBG/Small Cities Program is funded by the Office of Community Planning and Development, U.S. Department of Housing and Urban Development (HUD). Administered principally by the states, CDBG/Small Cities funds provide grants for activities that benefit low-income communities. These grants can be used to construct public facilities such as water and wastewater systems.
- **Partners for Environmental Progress (PEP) Initiative.** PEP is a new initiative of the U.S. Army Corps of Engineers that will provide financial assistance for market feasibility studies to help small communities find ways to privatize environmental services.
- **Appalachian Regional Commission (ARC) Supplemental Grants.** ARC's supplemental grants program provides grants to supplement other federal grants to fund community development facilities such as water and wastewater systems.
- **CoBank, the National Bank for Cooperatives.** CoBank is a federally chartered and regulated financial institution that received expanded authority under the 1990 Farm Bill to finance water and wastewater systems in communities under 20,000 population.

While all of these programs finance wastewater and drinking water projects to some extent, the Board has observed that improving coordination among the various financial assistance programs would help small communities develop more effective financing strategies to provide environmental facilities. No single program can be expected to meet all of the environmental facility needs of small communities. Because the needs and priorities of small communities are different, the existence of multiple funding sources offers small communities greater flexibility in developing financing strategies. Furthermore, with improved coordination among financial assistance programs, small communities can take advantage of opportunities to leverage the available funds by combining funding sources.

## **B. DISCUSSION**

The Board evaluated potential opportunities for improved coordination among financial assistance programs by examining the underlying objectives and funding priorities of each program. The SRF program provides financial assistance to local communities for construction of wastewater treatment facilities, with the overall objective of meeting the water quality goals of the Clean Water Act. Coordination efforts between EPA and other financial assistance programs could either be linked to the SRF program or more generally seek to ensure that funds are targeted to meeting the most serious environmental facility needs of small communities.

The Board has found that the greatest opportunities for improved coordination exist with the Water and Waste Disposal Loan and Grant Program, currently administered by the Farmers Home Administration. The Water and Waste Disposal Program provides funding targeted to water and wastewater treatment facilities in rural areas. Given its direct focus on funding environmental facilities and rural areas, coordination efforts between the Water and Waste Disposal Program and EPA are likely to achieve the greatest results in meeting small community environmental facility needs. While financial assistance for water and wastewater facilities also is provided under the ARC supplemental grants program; these funds are made available only if they conform to state Appalachian development plans and only for specified Appalachian counties.

The EDA and HUD programs appear to offer some opportunity where improved coordination could help small communities meet their environmental facility needs. EDA's program is oriented to economic development and the CDBG/Small Cities funds provided by HUD are oriented to helping low-income communities. Because many types of projects are eligible for funding under the EDA and HUD programs, applications for water and wastewater treatment projects would have to compete against other needs. Given that the EDA and HUD programs are less directly focused on environmental facilities, coordination efforts between EPA and these two programs may not provide the same level of benefits to meeting small community environmental facility needs as the Water and Waste Disposal Program.

As the Corps of Engineers PEP initiative already is being designed to complement EPA's Public-Private Partnerships initiative, the Board supports this existing coordination effort. In particular, the Board supports efforts currently underway to develop a Memorandum of Understanding between EPA and the Corps regarding their respective roles in helping small communities provide environmental services through public-private partnerships.

With its expanded authority under the 1990 Farm Bill, CoBank is poised to provide potentially significant financial services to rural communities for construction of water and wastewater systems. The Board has concluded that CoBank's new authority offers EPA an opportunity to take innovative steps to work with CoBank to assure that facilities constructed with CoBank loans will comply with applicable environmental regulations. As part of such a coordination effort, for example, EPA could provide guidance establishing minimum standards of planning, design, and construction for rural water and wastewater systems.

### **C. EPA SHOULD TAKE A LEADERSHIP ROLE IN MARSHALLING MULTIPLE FUNDING SOURCES FOR SMALL COMMUNITY ENVIRONMENTAL FACILITIES**

The Board believes that EPA should take a leadership role to coordinate multiple funding sources and develop the capacity of small communities to finance environmental facilities. As part of this leadership role, EPA should ensure that spending on small community environmental

facilities adequately addresses environmental and public health needs and compliance with environmental regulations. The Administrator may wish to consider two actions in this regard:

- Make a public statement highlighting the financial services and programs available to small communities in complying with environmental mandates, and
- Convene a roundtable of small community financial assistance programs.

**The Agency should make a public statement highlighting the financial services and programs available to small communities in complying with environmental mandates**

The Board recognizes that for some time EPA has emphasized and supported assistance to small communities, most notably through its publications and various financial and technical assistance programs. Largely as a function of the Agency's organization along media lines, small community activities traditionally have been carried out separately by media offices, and at least in the case of the Office of Water, by each of the several line programs within the office. The Board's concern is that the beneficiaries of these worthwhile programs -- the small communities themselves -- have to deal with the totality of federal and state environmental mandates, and hence may not be able to access or use effectively assistance delivered in a fragmented fashion.

The Board believes small communities could benefit from the issuance of a consolidated, multi-media statement that presents in one document the various programs and types of assistance available from EPA as well as the various rules affecting local governments. The Agency's Small Local Government Work Group currently is compiling such information.

To supplement this important activity, the Board recommends that the Agency develop a financial assistance catalog for small communities in complying with environmental mandates. The catalog would include (1) a clear, detailed description of federal grant, loan, and credit enhancement programs available to small communities; (2) technical advisory services concerning financial issues for small communities; (3) financial assistance and advisory services provided by nonprofit organizations; (4) criteria and techniques for assessing community financial capability and affordability based on the work of the Agency's Affordability Work Group; and (5) types and uses of public-private partnerships applicable to the needs of small communities.

**The Administrator should convene a roundtable of small community financial assistance programs**

To enhance EPA's leadership role in marshalling multiple funding sources for small community environmental facilities, the Administrator should consider convening a roundtable of small community financial assistance programs. Representatives of all small community financial assistance programs, both public and private, would be invited to participate in the roundtable. The purpose of the roundtable would be to facilitate improved coordination among small community programs and examine ways that such coordination can lower the costs of providing environmental services, promote effective small community compliance strategies, and encourage innovation.

The agenda of the roundtable should address these needs:

- **Ways and means to effect improved coordination among small community financial assistance programs.** A primary charge of the roundtable should be to foster agreement on environmental facility needs and overall priorities among the many small community programs. Various ways and means are available to coordinate community development, for example, with the goal of achieving full compliance with environmental regulations. Options for discussion at the roundtable could include an Executive Order, Memorandum of Understanding, Memorandum of Agreement, or an Interagency Agreement.
- **Coordination of small community financial assistance programs with EPA's geographic initiatives.** The Board recognizes that the Agency's geographic initiatives will have an increasingly important role in directing Agency resources to solving environmental problems. Within each of these geographic initiatives, the Administrator may wish to consider developing a financial plan for small community environmental facility needs. The roundtable should facilitate the coordination of multiple funding sources in addressing small community needs as they affect the objectives of EPA's geographic initiatives.
- **Mechanisms to promote pollution prevention.** The Board supports pollution prevention as an emerging alternative strategy to investing in environmental facilities for cleaning up pollution or managing wastes. However, the Board recognizes that pollution prevention strategies will require a fundamental shift in approach, as well as new technologies, before such strategies can be implemented in either large or small communities. The roundtable should address how financial assistance programs can incorporate pollution prevention strategies to benefit small communities.
- **Collection and exchange of more detailed information about small community environmental facility needs for all media.** The Board has found that lack of information about small community environmental facility needs for all media — wastewater, drinking water, and solid waste — makes it difficult to assess adequately the extent of these needs. More detailed information on small community needs by media is needed to set priorities and to facilitate coordination efforts among small community financial assistance programs. The roundtable also should examine ways to increase exchange of this information among small community financial assistance programs as well as with the private sector.
- **Mechanisms and incentives to encourage private sector participation.** The Board concurs with EPA's initiatives to promote public-private partnerships to finance environmental services. The roundtable should explore ways that other agencies can establish programs to support public-private partnerships as an effective financing strategy for small communities.
- **Improvements in technical assistance and outreach efforts.** The Board acknowledges that technical assistance has long been recognized as a crucial factor

in constructing as well as improving the performance of small environmental facilities. Many sources of technical assistance — ranging from state and federal agencies to nonprofit organizations, professional associations, and universities — already are available. The roundtable should seek to identify and to put into place technical assistance that provides more practical advice tailored to the needs of small communities. In addition, the roundtable should seek ways to better educate local governments about environmental regulations as part of the outreach efforts of all small community programs.

#### **D. EPA SHOULD SEEK IMPROVED COORDINATION BETWEEN SRFs AND FmHA's WATER AND WASTE DISPOSAL PROGRAM**

The Board has found that FmHA's Water and Waste Disposal Loan and Grant Program provides the greatest opportunities for improved coordination with the SRF because this program: (1) targets rural areas and small communities (less than 10,000 population), (2) targets water and wastewater systems, (3) takes explicit account of a community's financial capability in determining the type of assistance provided, and (4) provides grants to reduce user charges to affordable levels. In addition, the creation of the Rural Development Administration (RDA) and the transfer of the Water and Waste Disposal Program to this new agency offers an opportunity to seek improved coordination as this change is taking place.

The Board has identified two actions to develop improved coordination between the SRF and the Water and Waste Disposal Program that, in the Board's opinion, would provide the maximum benefits to meeting small community environmental facility needs. These actions are:

- EPA should encourage state agencies administering SRFs to improve coordination with state offices administering the Water and Waste Disposal Program.
- EPA should provide information to the Water and Waste Disposal Program on small community environmental facility needs and the importance of specific environmental and public health criteria that should be considered in the allocation of funds among states.

#### **EPA should encourage state agencies administering SRFs to improve coordination with state offices administering the Water and Waste Disposal Program**

Recognizing that the Water and Waste Disposal Loan and Grant Program is administered through FmHA's state and district offices and that the SRF program is administered by the states, the Board believes that EPA should encourage a closer working relationship between SRFs and FmHA state offices. These coordination efforts should continue as the Water and Waste Disposal Program is transferred to the RDA.

The objective of these coordination efforts could be to direct small communities to the most appropriate funding source or to combine these funding sources to finance small community wastewater projects. Combining SRF loans with Water and Waste Disposal loans or grants can



leverage the available funds for financing wastewater projects. The Board believes that efforts to combine funding sources should be targeted to those small or low-income communities with the greatest need. EPA can encourage SRFs to seek improved coordination with the Water and Waste Disposal Program through program guidance, technical assistance documents, workshops, and conferences.

Some states already have developed programs in which small communities benefit from coordination between the SRF and the Water and Waste Disposal Program as well as other state or federal financial assistance programs. The Board has identified two exemplary state-level coordination efforts, described below, that can serve as examples for other states.

The state of Minnesota has developed a unified application process that channels applicants to the state or federal assistance program most appropriate for their infrastructure project. This unified application process involves cooperation among Minnesota's state grant program, the SRF, and the FmHA, HUD, and EDA programs. The state grant program provides 65 percent grants to communities of 25,000 population or less and 35 percent grants to larger communities. To provide affordable financing for wastewater projects in smaller communities, Minnesota combines grants with loans to tailor a financing package to the needs of a specific community. By combining state and federal funding sources, Minnesota's program can provide affordable loans to the state's smaller communities and maximize the effectiveness of the available grant funds.<sup>14</sup>

In the state of Washington, a unique cooperation effort has substantially improved the ability of local communities to access both state and federal assistance programs. Two years ago, the state created the Inter-Governmental Public Facility Finance Committee, which is composed of representatives from the SRF, FmHA, HUD, and EDA programs as well as representatives from several state assistance programs. The committee meets every month to discuss opportunities for cooperation and to plan for their annual Inter-Governmental Public Facility Finance Conference. Communities in the state send representatives to the conference to learn about the available state and federal assistance programs. Each agency markets their services to local communities through separate presentations describing their assistance programs. The conference also offers seminars on how to finance particular types of projects or how to access combined financing from different grant and loan programs. Because local communities are able to obtain information about all of the available financial assistance programs, they can pursue the most affordable financing strategy.<sup>15</sup>

**EPA should provide information to the Water and Waste Disposal Program on small community environmental facility needs and the importance of specific environmental and public health criteria that should be considered in the allocation of funds among states**

The Board believes that EPA has an opportunity to work with the Water and Waste Disposal Program to help direct federal resources to the most serious environmental facility needs of small communities in rural areas. Currently, state-by-state allocation of funds under the Water and Waste Disposal Program is based largely on rural population. By providing information on small community environmental facility needs and specific environmental and public health

**criteria, EPA can encourage consideration of these issues in the program's allocation of funds among states.**

**The Water and Waste Disposal Loan and Grant Program already considers environmental and public health criteria at the state level when proposed projects are evaluated and rated. As such, these criteria are a factor in FmHA's final allocation of funds to eligible projects. However, the Board has concluded that consideration of these criteria at the national level when funds are allocated among states also would benefit small communities by targeting limited federal resources to those states with the most serious rural problems.**



### **III. USING BOND BANKS TO IMPROVE ACCESS TO THE BOND MARKET FOR SMALL COMMUNITIES**

Small communities that need to borrow money for environmental infrastructure projects often are unable to do so in the national bond market because of poor credit ratings, little financial expertise, and their relatively small capital needs. Without the ability to obtain debt financing, such communities may only be able to finance their environmental facility needs through state or federal financial assistance programs. While acknowledging that some small communities will require financial assistance, the Board maintains that the provision of subsidies through financial assistance programs should not be considered a panacea for the financing problems of small communities. The Board has concluded that bond banks are a financing strategy that can make debt financing opportunities more available to small communities and can help reduce the dependence of small communities on subsidized assistance.

#### **A. STATEMENT OF THE ISSUE**

Bond banks are financial institutions created primarily to provide smaller communities access to the national bond market for financing infrastructure projects. A bond bank purchases local government debt and pools these smaller bond issues into a large offering to sell in the bond market. Bond banks are used to finance a variety of projects, including water, sewer, road, and school construction. Because bond banks have been successful across the country in financing small community infrastructure projects, the Board believes that the bond bank concept offers an effective financing strategy for small community environmental facility needs. The following sections provide an initial analysis of the bond bank concept.

#### **How a Bond Bank Works**

Bond banks typically are structured in one of two ways. A bond bank either (1) sells bonds in the bond market and uses the proceeds to purchase bonds from local communities, or (2) buys bonds directly from local communities and pools several small issues into one large bond issue to be sold in the bond market. Bond pools can be "designated" (i.e., projects already have been identified when the issues are pooled) or "blind" (i.e., specific projects have not been identified when the bond bank sells its bonds). Proceeds from the pooled bond issue are loaned to the participating local communities, which repay the loan from facility revenues or from other local revenue sources.

Bond banks usually are backed by several security provisions. Most states with bond banks do not pledge their "full faith and credit" to back a bond bank's debt. Typical security provisions of bond banks include:

- Repayment agreements with the local communities,
- A debt service reserve fund to repay the bonds if other sources are not sufficient (the debt service reserve usually holds enough funds to ensure the maintenance of a bond bank's debt service requirements for one year),

- A "moral obligation" pledge by the state (i.e., a nonbinding pledge to use future state appropriations to repay bonds if necessary or to replenish the debt service reserve if depleted by the default of a local government), and
- Liens on state financial assistance, or an "intercept mechanism," through which the bond bank may seek to withhold state payments to a local government in the event of default.

For small communities, the major advantages of using a bond bank are to gain access to the bond market and to lower interest rates and issuance costs. For a community that is unrated or has a poor credit rating, a bond bank's higher credit rating and security provisions usually provide a lower interest rate on the pooled issue. Interest rates are further reduced because pooling smaller bond issues enables diversification, which reduces the risk of default. Pooled issues reduce fees and other up-front issuance costs since each community pays only its share of these fixed costs. Communities also benefit from other economies of scale associated with the pooled issue, such as lower administrative costs as a result of centralized administration by the bond bank. Bond banks also facilitate marketing of issues. Pooled issues are more attractive to underwriters because, being larger, they are easier to sell in the secondary market.<sup>16</sup>

### **State Experience with Bond Banks**

At least 11 states and the Commonwealth of Puerto Rico have established bond banks to enable local governments to gain access to the bond market and to create savings for local governments in the issuance of debt. Vermont created the first bond bank in 1969. Other states that have established bond banks are Alaska, Illinois, Indiana, Maine, Michigan, Mississippi, New Hampshire, Nevada, North Dakota, and Oregon. The Board has selected the Maine Municipal Bond Bank, which is one of the more active and successful bond banks, as a case study of the bond bank concept (see Appendix B).

Bond banks vary in their financing characteristics because states generally have adapted the bond bank concept to meet their particular needs. Such differences include how bonds for different types of projects are pooled, what types of bonds are purchased, and special programs to meet specific financing needs. For example, the Maine, Vermont, and Indiana bond banks purchase bonds for several different types of projects (e.g., water, sewer, school) and pool them into a single "umbrella issue" to sell on the bond market. Other bond banks, such as the New Hampshire bond bank, pool bonds for different types of projects separately. The Vermont bond bank purchases only general obligation (GO) bonds, while the Maine and Indiana bond banks purchase both GO and revenue bonds from participating local communities. The Indiana bond bank has a special program for communities with weaker credit ratings and purchases commercial insurance for these bond issues. Some bond banks, including the Maine and Indiana bond banks, provide refinancing of Farmers Home Administration loans, creating savings for communities on the costs of existing projects.<sup>17</sup>

## **1. DISCUSSION**

Bond banks have demonstrated both the ability to earn favorable credit ratings and help small communities obtain debt financing at reasonable rates. Because bond banks provide a mechanism for encouraging increased reliance on debt financing by small communities, the Board has found that the bond bank concept can make significant contributions to financing small community environmental facility needs. Because bond banks also can help reduce the need for small community subsidies, the Board believes that the Administrator should consider seeking wider use of bond banks as a means of facilitating capital financing for small communities.

This section examines several actions that the Administrator may wish to consider with regard to seeking wider use of bond banks. The first two actions, which address what EPA could do now to encourage wider use of bond banks, are:

- EPA should provide technical assistance on the establishment and use of bond banks, and
- EPA should identify barriers to effective bond bank operations and develop strategies to overcome those barriers.

The third action addresses a more innovative approach that the Board believes holds much promise for expanding the bond bank concept in a manner that could offer even greater benefits to small communities. This third action is:

- EPA should explore the financial, legal, and administrative feasibility of creating a regional or multi-state institution to facilitate issuance of tax-exempt bonds by small communities.

### **EPA should provide technical assistance on the establishment and use of bond banks**

Technical assistance can help states that have not yet created bond banks to establish new bond banks or help states that already have bond banks to improve the effectiveness of these financial institutions in meeting small community environmental facility needs. The Board recognizes that each state is unique and that it can be difficult to consider the range of goals, needs, and circumstances across all 50 states. Nevertheless, EPA can provide technical assistance on bond bank operations, advantages, and pitfalls, thus enabling states to evaluate the bond bank concept and how it can be used to meet small community environmental facility needs in their state. Such technical assistance can be delivered through publications, workshops, or conferences.

The Administrator also could consider providing technical assistance to encourage states to incorporate beneficial features of bond banks into their state financial assistance programs, whether or not these programs would then act specifically as a bond bank. The Board has identified Texas as a state where bond bank features are incorporated successfully into the state's financial assistance program. The Texas Water Development Board (TWDB) administers state

assistance programs that provide loans for the construction of water and wastewater facilities. TWDB has included the purchase of local debt as part of the assistance provided to local governments through these water and wastewater loan programs. TWDB also administers the SRF and has elected to purchase tax-exempt municipal bonds from local governments under the SRF. Funding for TWDB programs is obtained from the sale of Texas Water Development Bonds, which are secured by the full faith and credit of the state. Since the state presently has an AA rating, participating local governments can benefit from the state's lower interest costs.<sup>18</sup>

It is important to note that a bond bank cannot act as a revolving fund. A fundamental difference between bond banks and revolving loan funds is that unlike SRFs, bond banks are limited to obtaining capital from the bond market. Bond banks must constantly go back to the bond market for new capital because loan repayments from local governments are used to pay debt service on previous bond issues. In contrast, revolving loan funds are designed to create a permanent source of capital for making loans to local communities. After the initial capitalization of SRFs, loan repayments from communities are used to replenish the fund and to make loans available to other communities. A revolving fund, if managed properly, builds equity over time, while a bond bank builds very little equity or none at all. Finally, because bond banks rely on the sale of bonds backed solely by loan repayments, they cannot offer the interest rates subsidies that are available through SRFs.<sup>19</sup>

While the concept behind SRFs and bond banks is different, this does not limit states' flexibility in operating these financial institutions. In Maine, the SRF was formed as a cooperative effort between the Maine Department of Environmental Protection, which acts as project manager for the program, and the Maine Municipal Bond Bank (MMBB), which is the financial manager of the fund. MMBB created a separate account for the SRF to accept the EPA capitalization grants and the required state match, which was raised through general obligation bonds issued by the state of Maine. Through this cooperative effort, Maine can take advantage of MMBB's 20 years of experience in financial management to administer its SRF as a separate account of the state bond bank.<sup>20</sup>

**EPA should identify barriers to effective bond bank operations and develop strategies to overcome those barriers**

The Board has found that certain provisions of the 1986 Tax Reform Act have effectively increased the costs of operating a bond bank and reduced the savings to local governments from participating in a bond bank.<sup>21</sup> Tax issues appear to be the most significant barriers to the effective operation of bond banks and consequently can act as barriers to the establishment of bond banks in states that do not yet have them.

Provisions in the 1986 Tax Reform Act that restrict arbitrage earnings, for example, have had a significant impact on bond banks. Prior to the 1986 Tax Reform Act, bond banks typically used arbitrage earnings to fund their administrative and issuance costs. For most bond banks, this included arbitrage earnings from the short-term investment of bond proceeds before funds were loaned to participating local governments and arbitrage earnings from accumulations on the debt service reserve fund. Restrictions on arbitrage earnings in the 1986 Tax Reform Act limit the amount of arbitrage earnings and increase the costs of issuing bonds because of the need to track

arbitrage earnings. Another provision of the 1986 Tax Reform Act that has affected bond banks is the restriction on the size of the debt service reserve fund. Prior to the Act, bond banks typically maintained debt service reserve funds equaling maximum annual debt service, thus providing a credit enhancement that lowered interest costs for bonds issued by the bond bank.

The Board's Economic Incentives Advisory has addressed the impact of the 1986 Tax Reform Act on state and local financing of environmental facilities. The Administrator should be aware that provisions of the 1986 Tax Reform Act also impact the ability of state and local governments to finance environmental facilities through bond banks. To encourage wider use of bond banks, EPA should identify barriers to effective bond bank operations, such as those presented by tax issues, and take action to develop strategies to overcome those barriers. As part of this effort, EPA should work with existing bond banks to encourage the exchange of information about how they have handled tax issues.

**EPA should explore the financial, legal, and administrative feasibility of creating a regional or multi-state institution to facilitate issuance of tax-exempt bonds by small communities**

The Board has observed that some of the advantages of bond banks could be extended if regional or multi-state financial institutions were created to facilitate issuance of tax-exempt bonds by small communities. As the Agency is undertaking a number of geographic initiatives that are regional or multi-state in scope, the Board has given some consideration to this more innovative approach to the bond bank concept.

Regional or multi-state financial institutions could enable small communities to finance environmental facilities at favorable interest rates by offering the greater diversification and economies of scale possible with a larger size pooled bond issue and by providing security mechanisms. First, greater diversification from pooling a larger number of small issues should enhance the credit rating of a regional or multi-state institution and lead to lower interest rates for participating communities. Second, the greater economies of scale associated with larger pooled issues would reduce the share of issuance costs for each participating community. Finally, by spreading administrative costs over a larger pool, any fees necessary to cover administrative expenses also could be kept low.

Although the proposed regional or multi-state financial institutions appear to offer advantages to small communities, the Board has observed that there are many questions regarding their financial, legal, and administrative feasibility, which must be explored. While there are precedents for financial institutions that purchase and remarket tax-exempt bonds, there is no precedent for a conventional bond bank on either a multi-state or regional basis. Alternative models should be developed for the purpose of evaluating all of the financial, legal, and administrative issues.

The revenue impacts on the U.S. Treasury of the proposed regional or multi-state institutions also should be studied. Since it is contemplated that the use of such institutions would be confined to governmental units that are legally entitled to issue tax-exempt debt to finance environmental projects, there should be no revenue loss to the U.S. Treasury. Furthermore, since reducing the interest rates on tax-exempt bonds reduces the total amount of exempt interest

income, there may actually be a reflow gain to the U.S. Treasury from such institutions.<sup>22</sup> Because such questions are critical to the overall viability of the proposed institutions, the Board advises the Administrator to request an analysis of the total financial impact of the proposed regional or multi-state financial institutions on the U.S. Treasury.

The Board's consideration of these issues has resulted in a preliminary assessment that expanding the use of the bond bank concept to regional or multi-state institutions shows enough potential to merit further study. The Board encourages the Administrator to consider this more innovative approach, particularly as it relates to supporting the Agency's geographic initiatives.

#### **IV. IMPROVING FINANCIAL ASSISTANCE TO SMALL COMMUNITIES UNDER TITLE VI SRFs**

State Revolving Funds (SRFs), established under Title VI of the Clean Water Act as amended by the Water Quality Act of 1987, are intended to be administered and operated by the states to provide a permanent source of financing for water quality projects. Nevertheless, SRFs must meet certain federal requirements specified in the Clean Water Act and written into EPA's SRF regulations and guidance. These federal requirements currently do not mandate any special set-asides or eligibility provisions for small communities. At the same time, federal requirements do not prohibit such measures. States have the flexibility to incorporate measures targeted to small communities into their SRF programs. Some states already have taken into account the needs of small and/or economically distressed communities in designing and operating their SRFs.

Most of the financial assistance provided by SRFs will be in the form of loans for wastewater treatment facility construction. Loan repayments provide a continuous source of capital to SRFs to provide financial assistance to additional recipients (a key element of their "revolving" nature). Because of the predominance and integral nature of loan assistance under the SRF, the Board has focused its attention on the SRF loan program and its impact on small communities.

##### **A. STATEMENT OF THE ISSUE**

Although state experience with SRF program implementation is still somewhat limited, the Board has found that small communities are experiencing problems under existing SRF loan programs. EPA's draft report to Congress on the SRF found that states anticipate difficulty providing SRF loan assistance to economically distressed and/or small communities because such communities cannot afford SRF loans at even low interest rates.<sup>23</sup> A recent national survey regarding the impact of SRFs on the ability to finance wastewater treatment projects in rural, low-income communities found that nearly all SRF administrators expect some small communities will be unable to afford SRF loans and that small communities generally will have difficulty gaining access to SRFs.<sup>24</sup>

The Board has identified four general problems faced by small communities under Title VI SRFs:

- Small communities may not gain priority under the SRF if they must compete directly against larger communities,
- Small communities may not find affordable financing using SRF loans for construction of wastewater treatment facilities,
- Small communities may not seek SRF loans because they lack the ability to document needs and meet application requirements, and



- Even if SRF financing for capital costs was available, some small communities may not be able to afford the O&M costs of a wastewater treatment facility.

The Board has found that state lending practices are motivated by several factors in addition to wastewater facility needs.<sup>25</sup> The two most important factors are federal requirements and the need to maintain the financial integrity of the SRF. Federal requirements can affect lending practices in ways that limit small community access to SRF funds and can increase project costs, making it difficult to structure an affordable project for small communities. In developing their lending policies, states also face trade-offs between providing interest rate subsidies under SRFs and maintaining the long-term viability of the fund. To ensure that the revolving fund is self-sustaining, states may be reluctant to issue a large proportion of highly subsidized SRF loans (i.e., at low or zero interest rates) that would offer affordable financing for small community needs. The remainder of this section provides additional discussion of these factors and how they affect small communities.

SRFs are capitalized initially by EPA capitalization grants and a 20 percent state match. States must comply with federal requirements (e.g., compliance with Title II requirements for equivalency projects and cross-cutting authorities) when issuing loans "directly made available by" EPA capitalization grants, but are not required to comply with federal requirements when issuing loans from the state match or the repayment stream, or any over-match or leveraged funds.<sup>26</sup> While states currently have the flexibility to use at least the state match to provide loans that are not tied to federal requirements, the Board has found that many states are not aware of this flexibility. Some states have acted to hasten compliance with federal requirements by accelerating the distribution of initial loans tied to EPA capitalization grants. In these states, the majority of SRF loan funds are being disbursed as large loans to larger communities, often with incentives to accelerate loan repayment schedules. Such practices restrict small community access to SRFs.

States that issue bonds to meet the required 20 percent match or to leverage their SRFs may need to encourage the participation of larger communities that can afford the higher interest rates necessary to ensure that loan repayments adequately cover debt service on the bonds. Leveraging SRFs could possibly help small communities by increasing the total amount of funds available through the SRF to finance a state's wastewater facility needs. On the other hand, because of the need to charge higher interest rates to meet debt service requirements, leveraging could restrict states' flexibility to offer loans at lower interest rates to small and/or economically distressed communities. Leveraging SRFs also could more generally restrict small community access to SRFs because larger communities can be more creditworthy and gaining the participation of more creditworthy communities enhances the marketability of an SRF loan portfolio to leverage the fund successfully.

The principal form of subsidy provided under the SRF is low interest rates for SRF loans. All states offer SRF loans for the construction of wastewater treatment facilities at below-market interest rates. Where all communities in a state are eligible for such interest rate subsidies, small communities are placed into direct competition with larger communities for low or zero interest loans. Small communities find it difficult to compete directly against larger communities with greater financial and managerial resources.



For some small communities, interest rate subsidies under the SRF loan program (in some cases, even a zero percent rate) will not reduce the cost of capital enough to make a wastewater treatment project affordable. User fees sufficient to repay the loan will not be affordable for these small communities. Added project costs from federal requirements contributes to the difficulty faced by some small communities in developing an affordable project under the SRF.

Even under the most favorable SRF loan terms (zero percent loans), or alternatively, with 100 percent grant financing, some very small communities would not be able to afford the O&M costs for a wastewater treatment facility. These very small communities often were unable to obtain affordable local share financing under EPA's Construction Grants program and are not likely to be viable loan candidates under the SRF. The increasing costs of complying with federal environmental standards contributes to this problem.

The Board has observed that while the SRF provides financial assistance for wastewater treatment projects, small community environmental facility needs also include drinking water and solid waste management. As the SRF was established under the Clean Water Act, it may be difficult to incorporate a multi-media focus into the SRF loan program. Therefore, the Board also has examined whether a new multi-media revolving fund exclusively for small communities could benefit small communities by providing assistance for a broader range of small community needs.

## **B. DISCUSSION**

Recognizing the problems facing small communities under the existing SRF program, the Board has evaluated many options for improving financial assistance to small communities under Title VI SRFs. These options include changes to the SRF that would enhance the competitiveness of small communities under the SRF loan program and changes that would improve the affordability of SRF loans for small communities.

The Board has identified two strategies by which EPA can take a number of actions to improve financial assistance to small communities under Title VI SRFs. The first strategy addresses those actions that will require legislative change to the Clean Water Act and the second strategy focuses on actions that EPA can take under the existing Title VI SRF to better meet small community needs. These two strategies are:

- The Administrator should consider seeking legislative change to Title VI of the Clean Water Act to improve financial assistance to small communities, and
- EPA should actively encourage states to give more attention to small community needs in their current SRF programs.

### **C. THE ADMINISTRATOR SHOULD CONSIDER SEEKING ADMINISTRATION SUPPORT FOR LEGISLATIVE CHANGE TO TITLE VI OF THE CLEAN WATER ACT TO IMPROVE FINANCIAL ASSISTANCE TO SMALL COMMUNITIES**

The Board has concluded that taking action to target a portion of financial assistance directly to small communities is an important step in addressing small community environmental facility needs. The first two actions presented below represent two alternatives for targeting financial assistance directly to small communities. These two actions are:

- Create a small community set-aside under Title VI SRFs, or
- Create a new revolving fund exclusively for small communities covering wastewater treatment, drinking water, and solid waste management.

A third action to improve the affordability of SRF loans for small communities is:

- Extend the SRF loan term beyond 20 years for small communities.

#### **Create a small community set-aside under Title VI SRFs**

EPA could include set-aside provisions in the SRF program to target financial assistance directly to small communities. A small community set-aside would create a separate subaccount within Title VI SRFs for small community needs. A mandatory small community set-aside would require a statutory change to Title VI of the Clean Water Act. Alternatively, a small community set-aside could be discretionary coupled with financial incentives to encourage SRFs to use it. Because a mandatory set-aside would ensure that a fixed proportion of SRF loan funds are allocated to small community projects, the Board believes that this approach is a more secure means of meeting small community needs.

There are two ways to require states with SRFs to create a mandatory small community set-aside. First, states could be given a period of time to establish their own criteria within broad guidelines established by EPA and create a small community set-aside under their SRF. If not done by the states, EPA would establish criteria for them and require that the federal criteria be used to create and award assistance from the small community set-aside.

EPA or the states would need to develop a set of criteria to define which communities would be eligible for financial assistance under a small community set-aside. First, it would be necessary to define "small community" using population-size criteria. Other eligibility criteria could determine how states might make financial assistance available from a small community set-aside. Such criteria should be based on an accurate assessment of a community's financial condition and the ability-to-pay of its residents. EPA's experience with financial capability and affordability criteria could serve as the foundation for developing such criteria for a small community set-aside.

A precedent does exist for creating mandatory set-asides. EPA's Title II Construction Grants program, which is being phased out during the capitalization of the SRF program, included

number of mandatory set-asides. For example, states were required to establish reserves for water quality management activities (section 205(j)(1)), nonpoint source management (section 205(j)(5)), and a reserve of from 4 to 7.5 percent of each state's construction grants allotment to provide grants for innovative and alternative technologies. Of greater interest to small community concerns, rural states were required to reserve from 4 to 7.5 percent of their construction grants allotment for alternative systems for small communities (the rural set-aside).<sup>27</sup>

Although not required under the Clean Water Act, at least eight states (Colorado, Florida, Kansas, Kentucky, New York, North Carolina, Oregon, and Texas) have established set-asides for small community needs within their SRFs.<sup>28</sup> New York allocates its SRF funds among three population size categories with the category for small communities defined as less than 3,500 population. Each year, New York's SRF funds will be allocated to the three population size categories based on their share of total state facility needs. New York also applies financial capability criteria to determine eligibility for lower interest loans.<sup>29</sup> In the other seven states, SRF set-asides for small communities average 10 percent of total loan funds (or approximately \$4 million). For these set-asides, the definition of a small community ranges from populations of less than 3,500 to less than 20,000 persons.

Four of these states (Florida, Kansas, Oregon, and Texas) have set-asides dedicated to small communities regardless of their financial capability. Florida reserves 10 percent of its SRF funds for communities of less than 20,000 persons.<sup>30</sup> Kansas reserves 10 percent of its yearly SRF loans for communities of less than 5,000 persons (representing 92 percent of all communities in the state).<sup>31</sup> In Oregon, 15 percent of the SRF funds are set aside for communities of less than 5,000 persons, although small communities can receive more than 15 percent if dictated by the state's priority ranking system.<sup>32</sup> Texas divides its communities into population size categories, each of which is guaranteed 5 percent of the SRF loans. The state's two categories for smaller communities are less than 3,500 and 3,501 to 10,000 persons.<sup>33</sup>

A small community set-aside also could incorporate special eligibility provisions for alternative wastewater treatment technologies for small communities (i.e., incentives for appropriate-scale solutions) or for separate facility needs (e.g., septic tank repair or replacement). An innovative state program in Washington, for example, sets aside 10 percent of SRF funds for on-site system repair and replacement in rural areas under a nonpoint source pollution control program.<sup>34</sup>

### **Benefits**

By specifically earmarking a portion of SRF funds for small community needs, a mandatory set-aside would help to ensure that small communities have access to the SRF program to finance wastewater treatment projects. The primary advantage of such a set-aside is its ability to target funds directly to small communities, thereby eliminating the need for small communities to compete against larger communities for the available SRF funds.

A single set-aside for small communities would likely provide greater benefits to small communities than an allocation of SRF funds by population size categories. If such population size categories were allocated funds according to the level of documented facility need in each

category, both the higher project costs and better documentation of needs for larger communities could lead to an insufficient share of funds targeted to small communities.

### Concerns

To be most effective in meeting small community wastewater treatment needs, a set-aside would have to provide a sufficient amount of funds in each state. This could become even more important if small communities are not able to get SRF funds from outside of the set-asides once they are created. States may voice concern that a mandatory set-aside will reduce their flexibility in managing SRFs to best meet their particular needs. However, without specifically earmarking a portion of SRF funds for small communities, it appears that small communities will continue to have difficulty competing with larger communities for available funding. States could be given some flexibility, within broad guidelines, to establish their own definition of a "small community" to determine eligibility under the set-aside.

Some small communities may not be able to take advantage of a small community set-aside unless the SRF loans provided from the set-aside are made more affordable. Several ways to improve the affordability of SRF loans are discussed in this Advisory and any of these could be incorporated into the small community set-aside.

It must be recognized that SRF loans provided from a small community set-aside may carry a slightly higher risk of late payments, default, or other loan problems. States would need to plan for dealing with such problems, especially if eligibility criteria serve to target a significant portion of small community set-aside funds to higher risk small community projects. One way to reduce such risks would be to provide incentives that encourage appropriate-scale solutions for small community wastewater treatment.

### Sources of Funding

In creating a mandatory small community set-aside, one of the most significant concerns is the source of funding for the set-aside. The Board has considered several sources of funding at both the federal and state level. These potential funding sources are listed below.

- Reallocation of a portion of the authorized appropriations for the SRF to a small community set-aside.
- Additional appropriations for a small community set-aside. Under Title XII of the Omnibus Budget Reconciliation Act of 1990, discretionary spending caps were set for FY 1991-1995. The FY 1991 budget was used as the "benchmark" to forecast future spending limits for specific programs. Authorized appropriations for EPA capitalization grants are \$2.4 billion in FY 1991. After 1991, authorized appropriations are scheduled to decrease by \$600 million each year to \$1.8 billion for FY 1992, \$1.2 billion for FY 1993, and \$600 million for FY 1994. Holding appropriations constant at \$2.4 billion through 1995 would yield an additional \$6 billion from FY 1992-95, part of which could be earmarked for the small community set-aside.

- Additional federal sources of funding. The Board's Public Sector Finance Advisory examines several proposed federal funding sources, including new wastewater effluent charges.
- A higher state match with a portion of the funds allocated to a small community set-aside. For example, the required state match could be raised from 20 percent to 25 percent, with the additional 5 percent allocated to a small community set-aside.
- Funds from the SRF repayment stream could be allocated to a small community set-aside.
- EPA could encourage states to explore options to raise additional state funds for SRFs that could be used for a small community set-aside.

**Create a new revolving fund exclusively for small communities covering wastewater treatment, drinking water, and solid waste management**

Another action the Administrator could take to target financial assistance directly to small communities is to seek Administration support for creating a new revolving fund exclusively for small communities.<sup>35</sup> Small community revolving funds could be created at the state level to offer loans at or below market interest rates, including zero interest loans, and to make grants available to economically distressed small communities to finance environmental facilities. The Board believes that a new small community revolving fund should provide such financial assistance for capital projects for three media – wastewater treatment, drinking water, and solid waste management.

Because circumstances across the 50 states can be very different, the Board has concluded that eligibility criteria under a small community revolving fund should be determined by the states within broad guidelines established by the legislation creating the fund. The states should have the flexibility to determine their own population size criteria for defining which small communities would be eligible for financial assistance from the new revolving funds. Similarly, states should have the flexibility to chose their own criteria for defining an economically distressed small community for purposes of grant eligibility.

Because the provision of grants can deplete the corpus of the fund over time, the Board believes that there should be a cap on the percentage of overall funds that may be disbursed as grants. A cap on grants will prevent the fund from becoming a grant program rather than a revolving fund.

The Board maintains that technical assistance should be an integral component of the financial assistance made available from a new small community revolving fund. Grant recipients, in particular, should receive technical assistance to ensure the best use of grant funds.

## **Benefits**

A separate revolving fund would have the advantage of targeting financial assistance directly to small communities. By providing financial assistance for wastewater treatment, drinking water, and solid waste management projects, a new small community revolving fund would allow small communities the flexibility to address their most pressing environmental facility needs according to their own priorities.

The grant component of the proposed fund has obvious benefits to small communities in that even the most economically distressed small communities can receive financial assistance. Presently, small communities may not be applying for Title VI SRF loans because they cannot afford to pay back a loan even if no interest is charged. More important, the grant component would help ensure that the most serious environmental and public health concerns of small communities are addressed, regardless of a community's financial capability.

Because the small community revolving fund would cover drinking water projects, small communities would benefit if privately-owned public-purpose small facilities were eligible for financial assistance from the fund. The Board has observed that a large proportion of small drinking water systems are privately-owned, public-purpose facilities. Creating a new revolving fund provides an opportunity to consider the benefits and implications of including privately-owned, public-purpose facilities as eligible projects with regard to better meeting the drinking water needs of small communities.

## **Concerns**

Creating a small community revolving fund potentially could result in the exclusion of small communities from the existing Title VI SRF program. Another concern is that a separate revolving fund for small communities would not have the flexibility that states now have under Title VI SRFs to charge larger projects higher interest rates to provide a larger subsidy to small or economically distressed communities.

A major concern regarding the grant component of the proposed fund is the effect that providing grants would have on the long-term viability of the new revolving funds. Without a repayment stream sufficient to provide a continuous source of capital, the revolving funds eventually would be depleted over time. If a large percentage of the funds are disbursed as grants, the revolving funds eventually would require re-capitalization or they would expire.

Finally, providing assistance from the new revolving funds for a broad range of projects -- wastewater treatment, drinking water, and solid waste management -- could make it difficult to address any one of these media thoroughly, given the extent of small community needs for all three media. However, because multiple sources of financial assistance exist for small communities, the small community revolving fund would not be expected to meet all of the environmental facility needs of small communities.

## **Sources of Funding**

A source of funding is a significant concern for a new small community revolving fund. Because the fund covers three media, it will require an initial capitalization that is sufficient to address adequately a broad range of small community needs. The Board has considered both federal and state funding sources for the new small community revolving fund. These potential funding sources are listed below.

- Reallocation of a portion of the authorized appropriations under the Clean Water Act to a sub-state revolving fund exclusively for small communities, and amending Title VI to allow these funds to be used for wastewater treatment, drinking water, and solid waste management. In FY 1990, Congress authorized the state of Texas to establish a special revolving fund for colonias, the small communities along the international border with Mexico. This special revolving fund was capitalized from the construction grant allotment for Texas.
- Additional appropriations for a new small community revolving fund.
- Other federal funding sources. The Board's Public Sector Finance Advisory examines several proposed federal funding sources for different media, including new user fees and effluent charges. These funding sources are examined in the context of a proposed financing mechanism, an Environmental Trust, that would provide hardship grants to fund the provision of local environmental services in drinking water, wastewater treatment, and solid waste management.
- A state match that could be set, for example, at 25 percent of the federal capitalization grants made available for the new small community revolving funds.
- States could be given incentives to raise additional state funds that could be used for the new small community revolving funds.

## **Extend the SRF loan term beyond 20 years for small communities**

Extending amortization periods for SRF loans awarded to small communities could help reduce annual debt service. The Board believes that the SRF loan term should be extended up to 40 years for small communities, as long as the loan term does not exceed the design life of a facility. Because the Clean Water Act presently requires that loans awarded from SRFs be fully amortized not later than 20 years after project completion, a statutory change would be necessary to allow states to extend the amortization period beyond 20 years. Alternatively, an extended loan term could be incorporated into the new small community revolving fund, if created.

As an alternative or in addition to extending the loan term, small communities also could benefit from deferred loan repayments, for example, for up to 3 years after project completion. This practice does not reduce the total amount to be repaid, but pushes back repayments for several years allowing a community to enjoy a grace period. This, too, would require a statutory



change to the Clean Water Act, as the Act presently requires that annual loan repayments begin no later than one year after project completion.

### **Benefits**

Extending the SRF loan term would increase the affordability of SRF financing for small communities by lowering annual debt service. Lower annual loan repayments would especially benefit those small communities in weak financial condition. The SRF also may benefit by reducing potential loan problems, such as late payments or defaults.

### **Concerns**

It would be difficult to justify extending the loan term beyond the design life of a facility. Generally, the term of a loan is linked to the useful life of the facility or improvement financed by the loan. When loan repayments are backed by user charges, this practice helps to ensure that loan payments will continue to be made until the entire debt is repaid.

The design life of a wastewater treatment facility can be up to 30 years. Extending the loan term up to 30 years in such cases would lower annual debt service for the community. Because collector systems can represent a large proportion of total wastewater project costs for small communities and typically have a 40-year design life, this component of small community wastewater needs may be best suited to extended amortization periods.

## **D. EPA SHOULD ACTIVELY ENCOURAGE STATES TO GIVE MORE ATTENTION TO SMALL COMMUNITY NEEDS IN THEIR CURRENT SRF PROGRAMS**

The Board has concluded that there are a number of actions that would improve the affordability of SRF loans for small communities. Other actions would broaden the range of financial assistance available to small communities from SRFs. The states currently have the flexibility to implement any of the following actions under their SRFs. These actions are:

- Vary interest rates based on ability-to-pay or other measures of economic need,
- Provide supplemental state grants for hardship cases,
- Allow subsidization of principal for loans made from the repayment stream,
- Mitigate federal requirements for small communities,
- Provide guarantees for small community debt, and
- Provide technical assistance to small communities.



## **ary interest rates based on ability-to-pay or other measures of economic need**

The ability of states to provide interest rate subsidies (i.e., below-market interest rates) on SRF loans is one approach to addressing small community financial capability problems. Because the interest rate charged on SRF loans can have a significant impact on user charges, low or zero interest rates can improve the affordability of SRF financing (see Appendix C for an affordability analysis of SRF loan financing).

As the Clean Water Act already authorizes SRF interest rate subsidies, EPA can act now to encourage states to offer interest rate subsidies for small or low-income communities. If a small community set-aside is created under the SRF, interest rate subsidies should be incorporated as part of the set-aside. Subsidized interest rates also should be incorporated under the new small community revolving fund, if created.

The SRF was established to allow states the flexibility to offer interest rate subsidies. Subsidized interest rates are being provided under SRFs for at least two reasons. First, because federal requirements increase project costs for SRF loan recipients, states have found that a subsidized interest rate is necessary to make the SRF loan program attractive to communities. Thus, one reason that states are offering SRF loans at below-market interest rates is to offset the added project costs of meeting federal requirements. Some analyses have estimated that an interest rate subsidy of 2 to 3 percent below the market rate is necessary to offset these added project costs.<sup>36</sup> Second, some states offer an additional interest rate subsidy (as low as a zero percent rate) to meet the needs of small and/or low-income communities.

A recent survey of SRFs<sup>37</sup> found that 12 states (Delaware, Kentucky, Maryland, Minnesota, Montana, Nebraska, New York, Pennsylvania, Tennessee, Utah, Virginia, and West Virginia) offer SRF loans at interest rates on a sliding scale to as low as zero percent based on ability-to-pay. Fixed "hardship" interest rates (typically 0 percent, but ranging up to 2 percent for some states) for facilities in economically distressed areas are offered in Minnesota, New Mexico, Ohio, Pennsylvania, South Carolina, Texas, Vermont, and Washington.

### **Benefits**

Interest rate subsidies on SRF loans are an effective way to structure affordable financing for some small communities. Lowering the interest rate can have a significant effect by lowering the interest payments on the loan, which lowers the overall capital financing costs for the community. With lower capital costs for its wastewater treatment facility, a community can keep user fees at affordable levels.

Eligibility criteria could target the level of the SRF interest rate subsidy to the severity of the financial capability problems faced by a community. Some states already have established eligibility criteria that could serve as examples to other states that chose to incorporate interest rates based on ability-to-pay into their SRF loan programs.

## **Concerns**

There is a trade-off between the long-term viability of a revolving loan fund and the level of subsidy offered to local communities. If a large proportion of loans are awarded at highly subsidized interest rates, a revolving loan fund will be depleted over time. Lending policies should be evaluated in terms of their effect on the self-sufficiency of the SRF program.

When evaluating the affordability of a wastewater treatment project, it is important to realize that the SRF subsidizes only the capital portion of a community's wastewater facility costs. O&M costs can represent a large proportion of the total costs of a wastewater treatment facility. For some small communities with financial capability problems, the O&M costs alone could make a wastewater treatment project unaffordable. O&M costs must be examined as closely as capital financing costs to evaluate whether a small community could benefit from an SRF interest rate subsidy. Choosing an affordable treatment technology from the standpoint of O&M costs is important to the success of small community projects.

SRF interest rate subsidies will not help all small communities. Low-income small communities may not find affordable financing using the SRF even with a zero interest loan. Where the necessary increase in user fees or the need to implement user fees for the first time is subject to voter approval, it may be difficult to raise user fees high enough to repay the loan. In certain hardship cases, communities may need additional financial assistance to meet their wastewater treatment needs.

### **Provide supplemental state grants for hardship cases**

Communities with very low household incomes and communities located in economically distressed areas with high unemployment rates will have the most serious financial capability problems. Those communities with the greatest financial need could be characterized as hardship cases. Hardship cases generally will not be able to afford SRF financing without additional financial assistance. Some, but not all, hardship cases will be small communities. Supplemental grants are one way to provide the additional financial assistance these communities will require to meet their wastewater treatment needs. The new small community revolving fund, described above, would be created with a grant component for economically distressed small communities.

The Clean Water Act currently prohibits states from providing grants with funds from the SRF. Hence, a statutory change to Title VI of the Clean Water Act would be necessary if grants were to be provided from SRFs. Such a change is unlikely to occur as the SRF program is intended to be a transition from a grant program (i.e., the Construction Grants program in which federal grants were awarded to local governments by EPA, but most program activities were delegated to the states) to a loan program. Grant assistance for hardship cases in conjunction with the SRF, therefore, will most likely be in the form of state grants from other state funding sources. One alternative for states is to provide such grant assistance through an over-match to the SRF.

At least 19 states currently offer supplemental funding in the form of grants or low-interest loans targeted to small or low-income communities for wastewater projects. These supplemental

unds are raised from other state revenue sources. Some states combine supplemental state grants with SRF loans to increase the affordability of an SRF loan for the community. Of the 19 states, eight states target funds to small, low-income communities, five states target funds to small communities, and six states target funds to low-income communities.<sup>38</sup>

In addition to grant assistance for construction of wastewater treatment facilities, planning grants could be provided to help small communities document their needs and serve as an incentive for small communities to participate in the SRF loan program. Some very small communities may not be able to afford the up-front costs of applying for SRF loans. Federal requirements under the SRF specify that facility plans, environmental impact statements, and water quality management plans be completed prior to loan approval. These requirements add to the overall project costs of facilities constructed with SRF financing. Without additional financial assistance to cover the costs of preliminary planning and design requirements, some small communities may not have the ability to seek SRF loan assistance for their wastewater facility needs. At least six states currently offer planning and/or design grants to low-income small communities.<sup>39</sup>

### **Benefits**

Supplemental grants may be the only way to package affordable financing for wastewater treatment facility construction for hardship cases. This additional level of subsidy could be targeted first to hardship cases with serious environmental or public health problems. In this way, the greatest benefits could be obtained from the limited resources available to provide state grants.

### **Concerns**

States may have difficulty expanding existing state grant programs or establishing new grant programs because of the serious strain that such programs can place on state resources. EPA may need to find ways to provide incentives that would encourage states to provide such grant assistance.

### **Sources of Funding**

States will need to find their own funding sources for grant assistance to combine with SRF loans or to offer as a separate state grant program. EPA could encourage states with existing grant programs to share information regarding how they have successfully raised such funds. These additional state funds for supplemental grant assistance could be provided as an over-match to the SRF.

### **Allow subsidization of principal for loans made from the repayment stream**

Subsidization of principal on SRF loans is another option that could benefit small communities. The SRF could write down up to 100 percent of the principal to be repaid on an SRF loan, effectively providing subsidization of principal along with subsidized interest. Because

subsidization of principal can improve the affordability of SRF loans, the Board has concluded that this option merits further investigation.

The Board believes that subsidization of principal should be tied to certain conditions, such as a good compliance record or the use of innovative or appropriate technologies to provide cost-effective wastewater treatment for small communities. Principal write-downs should come into effect only if a small community meets such conditions, thus providing an incentive for responsible facility planning and management.

### **Benefits**

Some small communities have serious environmental or public health concerns, yet are not able to afford an SRF loan even at zero percent interest. These communities may be forced to forego construction of a needed wastewater treatment facility if a greater level of subsidy is not available. Principal write-downs could provide this additional subsidy under the existing SRF program.

Subsidization of principal would allow a community to keep user fees at affordable levels because the SRF would subsidize debt service costs. The community, however, should be required to set user fees high enough to cover operation and maintenance costs and to build up a reserve that would pay for future capital improvements.

### **Concerns**

Allowing subsidization of principal would tend to make some SRF loans become much like grants. By limiting principal write-downs to small communities, only the smaller loans from the SRF would be eligible for this additional subsidy. States also may want to limit principal write-downs to hardship cases facing serious environmental and public health problems.

Subsidizing the principal on SRF loans would reduce the repayment stream, which is the source of capital to maintain the long-term viability of SRFs. States that offer principal write-downs would see their funds depleted over time unless some mechanism is put in place to raise additional funds or charge larger projects higher interest rates to provide an additional subsidy to hardship cases.

### **Mitigate federal requirements for small communities**

The Board has observed that some states are not aware that they currently have the flexibility to provide SRF loans that are not subject to federal requirements. Because federal requirements add to project costs, meeting these requirements can make an SRF loan unaffordable for some small communities. These federal requirements include Title II equivalency requirements and cross cutting authorities. The Board's Public Sector Finance Advisory also examines the impact of these federal requirements on SRF loan financing for local governments.

States must comply with Title II equivalency requirements when issuing loans "directly made available by" EPA capitalization grants. These "equivalency requirements" are the 16 specific statutory requirements that section 602(b)(6) of the Clean Water Act attaches to section 212 publicly-owned treatment works projects constructed "in whole or in part before FY 1995." These equivalency requirements include labor wage provisions of the Davis-Bacon Act and environmental impact statements as required by the National Environmental Policy Act (NEPA).

Cross cutting authorities are those federal laws and authorities that are applicable to all projects or activities receiving federal financial assistance, regardless of whether the statute authorizing the assistance makes them applicable. These federal cross cutters include the Civil Rights Act of 1964, requirements for the participation of minority- and women-owned businesses, and a number of federal environmental laws and Executive Orders. Under the SRF, federal cross cutters apply to projects assisted with funds "directly made available by" EPA capitalization grants.

Because equivalency requirements and cross cutting authorities apply only when issuing SRF loans "directly made available by" EPA capitalization grants, they do not apply when issuing loans from the state match or the repayment stream, or any over-match or leveraged funds. States can choose not to subject small community projects to equivalency requirements or cross cutting authorities when making SRF loans from these other funding sources.

### **Benefits**

Providing SRF loans to small communities from funds that are not tied to compliance with federal requirements can avoid subjecting small communities to the added costs of these requirements, thus making SRF loans more affordable for small communities. More important, if small community projects are not subject to the added costs of federal requirements, the entire subsidy offered under the SRF can go to offset real project costs.

### **Concerns**

Some communities may have chosen not to seek SRF loans because of misconceptions regarding compliance with federal requirements. States should educate their local communities about these issues through outreach efforts, as needed, so that communities are not avoiding the SRF unnecessarily due to apprehension about the additional costs of meeting federal requirements.

### **Provide guarantees for small community debt**

One type of financial assistance authorized under the SRF is providing guarantees for local debt obligations where such action would improve credit market access or reduce interest rates. SRFs also can purchase or provide bond insurance to guarantee debt service payment. Bond insurance is available from a number of commercial insurance companies. The Board has concluded that states can act to improve debt financing opportunities for small communities by using their SRFs to provide guarantees for small community debt.

## **Benefits**

Some small communities may wish to issue debt to finance wastewater treatment facilities, but may be constrained by lack of access to the capital markets or by higher interest rates charged for small debt issues. Using the SRF to provide guarantees for small community debt serves as a credit enhancement and can lower debt financing costs for small communities.

## **Concerns**

Using an SRF to guarantee or purchase insurance for local debt obligations would involve spending SRF funds without a repayment stream and thus would have some effect on the corpus of the fund. To offset this concern, SRFs could charge a "premium" for providing bond insurance, but this would increase the costs of offering this type of financial assistance to small communities.

## **Provide technical assistance to small communities**

Technical assistance has long been recognized as an important mechanism for helping small communities meet their environmental facility needs. Technical assistance could help small communities gain access to SRFs. Lack of information and inability to properly document facility needs are major reasons why some small communities are not taking advantage of the SRF program. Because technical assistance also has an important role in improving the performance of small environmental facilities, providing such assistance could benefit small communities by lowering O&M costs.

Technical assistance can be made available for planning, design, financing, construction, management, and operation and maintenance of wastewater treatment facilities. At least four states (Alaska, Minnesota, Wisconsin, and Vermont) currently provide technical assistance in conjunction with their SRFs for the purpose of correcting O&M problems.<sup>40</sup> Technical assistance is particularly important if supplemental grant assistance is provided to ensure the best use of limited grant funds.

The Board believes that technical assistance should be designed to encourage the adoption of cost-effective technologies for small community environmental facilities. Lower cost technical solutions can play an important role in improving the affordability of small community environmental infrastructure projects by lowering the capital costs of constructing a facility.



## NOTES

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2. Apogee Research, Inc. and Wade Miller Associates, Inc., "Problems in Financing and Managing Smaller Public Works," prepared for the National Council on Public Works Improvement (September 1987), 5, 12.
3. National Council on Public Works Improvement, *Fragile Foundations: A Report on America's Public Works* (February 1988), 100-101.
4. Office of Technology Assessment, U.S. Congress, *Rebuilding the Foundations: A Special Report on State and Local Public Works Financing and Management*, OTA-SET-447 (Washington, DC: U.S. Government Printing Office, March 1990), 116-117.
5. Office of Administration and Resources Management, U.S. Environmental Protection Agency, *A Preliminary Analysis of the Public Costs of Environmental Protection: 1981-2000* (May 1990), 27, 29-30. All costs are presented in 1988 dollars.
6. Office of Policy, Planning, and Evaluation, *Environmental Investments*, 4-13, 5-12.
7. Personal communication with A. W. Marks, EPA Office of Ground Water and Drinking Water, June 27, 1991. Also see Office of Policy, Planning, and Evaluation, *Environmental Investments*, F-18.
8. These assumptions were calculated using data from EPA's *Municipal Sector Study*. See Office of Policy, Planning, and Evaluation, U.S. Environmental Protection Agency, *The Municipal Sector Study: Impacts of Environmental Regulation on Municipalities*, EPA 230-09/88-038 (September 1988), III-3, III-8.
9. Office of Policy, Planning, and Evaluation, *The Municipal Sector Study*, ix.
10. Testimony of Robert H. Wayland, Deputy Assistant Administrator for Water, U.S. Environmental Protection Agency, before the U.S. Senate Committee on Environment and Public Works, May 15, 1990. As defined by EPA's Office of Drinking Water, a community drinking water system provides piped water to 25 or more permanent residents and/or 15 residential service connections.
11. Council of Infrastructure Financing Authorities, "Small Community Infrastructure: Subsidies in Transition," (October 1989), 3-5.
12. Bureau of the Census, U.S. Department of Commerce, *1980 Census of Population: Number of Inhabitants, United States Summary*, PC80-1-A1 (Washington, DC: U.S. Government Printing Office, April 1983), 36-37. The Bureau of the Census has not released 1990 population data by size of place.



13. Bureau of the Census, *1980 Census of Population*, 59-60.
14. Personal communication with Terry Kuhlman, Minnesota Department of Trade and Economic Development, March 29, 1991.
15. Personal communication with Dan Filip, Washington Department of Ecology, Water Quality Financial Assistance Program, March 29, 1991.
16. Joni L. Leithe, "State Bond Banks," *Credit Pooling to Finance Infrastructure: An Examination of State Bond Banks, State Revolving Funds, and Substate Credit Pools*, (Government Finance Officers Association, September 1988), 24-34; and Chambers Associates, Inc., "State Infrastructure Banks," prepared for the National Association of Home Builders Task Force on Infrastructure (September 1988).
17. Personal communication with state bond bank officials in Alaska, Indiana, Maine, Michigan, and New Hampshire; and Leithe, "State Bond Banks," 24-55.
18. Personal communication with Lana Lutringer, Texas Water Development Board, March 1991; and materials provided by the Texas Water Development Board.
19. Office of Water, U.S. Environmental Protection Agency, *Reference Guide on State Financial Assistance Programs*, EPA 430/09-88-0004 (February 1988), 25-29.
20. Personal communication with Robert Lenna, Executive Director, Maine Municipal Bond Bank, April 12, 1991; and Cathy Robinson, Maine Municipal Bond Bank, April 26, 1991.
21. Leithe, "State Bond Banks," 31-33; and Office of Water, *Reference Guide*, 21, 28.
22. Personal communication with Michael Curley, Heartland Resources, Inc., June 19, 1991.
23. Office of Municipal Pollution Control, U.S. Environmental Protection Agency, *State Revolving Fund (SRF) Final Report to Congress: Financial Status and Operations of Water Pollution Control Revolving Funds* (May 1991 draft), 6-7, 11-1.
24. The Center for Community Change, *Through the Revolving Door: An Analysis of Rural Wastewater Financing* (Washington, DC: The Aspen Institute, forthcoming).
25. Several sources were used, including Office of Municipal Pollution Control, *State Revolving Fund (SRF) Final Report to Congress*; The Center for Community Change, *Through the Revolving Door*; and personal communication with SRF program staff in various states.
26. See Office of Municipal Pollution Control, U.S. Environmental Protection Agency, *Initial Guidance for State Revolving Funds* (January 1988), 11-18.
27. Office of Municipal Pollution Control, *Initial Guidance for State Revolving Funds*, C-5.
28. The Center for Community Change, *Through the Revolving Door*.

29. Personal communication with Jerry Durr, New York State Environmental Facilities Corporation, March 1991.
30. Personal communication with Jim Watson, Florida Department of Environmental Regulation, March 1991.
31. Personal communication with Rod Geisler, Kansas Department of Health and Environment, March 28, 1991.
32. Personal communication with Martin Loring, Oregon Department of Environmental Quality, March 25, 1991.
33. Personal communication with Kevin Ward, Texas Water Development Board, March 22, 1991.
34. The Center for Community Change, *Through the Revolving Door*.
35. Title I of the "Small Community Environmental Infrastructure Assistance Act of 1990" (S.729), introduced in the 102nd Congress, contains provisions for such a fund. The Act, which previously was introduced in the 101st Congress, would establish revolving funds at the state level to help small communities finance capital projects for wastewater treatment, drinking water, and solid waste management through a combination of grants and loans at or below market interest rates.
36. Office of Municipal Pollution Control, *State Revolving Fund (SRF) Final Report to Congress*, 6-4.
37. The Center for Community Change, *Through the Revolving Door*.
38. The Center for Community Change, *Through the Revolving Door*.
39. The Center for Community Change, *Through the Revolving Door*.
40. The Center for Community Change, *Through the Revolving Door*.

## **APPENDIX A**

### **SMALL COMMUNITY FINANCIAL ASSISTANCE PROGRAMS**

The Board examined a number of programs that provide financial assistance to small or low-income communities or rural areas for environmental infrastructure projects. Six federal, regional, or state-administered programs as well as CoBank, a federally chartered financial institution with an important role in rural areas, were examined in some detail. Appendix A provides brief descriptions of the following small community financial assistance programs:

- State Revolving Fund (SRF) Program,
- Water and Waste Disposal Loan and Grant Program — Farmers Home Administration,
- Public Works and Development Facilities Grant Program — Economic Development Administration,
- Community Development Block Grants/Small Cities Program — Department of Housing and Urban Development,
- Partners for Environmental Progress Initiative — U.S. Army Corps of Engineers,
- Appalachian Regional Commission Supplemental Grants, and
- CoBank, the National Bank for Cooperatives.

#### **State Revolving Fund (SRF) Program**

Title VI of the Clean Water Act, as amended by the Water Quality Act of 1987, authorizes the U.S. Environmental Protection Agency (EPA) to award capitalization grants to states for the purpose of establishing state revolving funds (SRFs).<sup>1</sup> SRFs are intended to be permanent state institutions to provide a continuous source of funding for water pollution control facilities and programs. States also must contribute to the capitalization of their SRFs by providing at least a 20 percent state match for each EPA capitalization grant. The state match can be derived from a variety of funding sources, including legislative appropriations, proceeds from state bonds, or dedicated state taxes.

From the SRF, states may provide loans and other types of financial assistance, but may not provide grants, to municipalities, intermunicipal, interstate, or state agencies for the construction of publicly-owned wastewater treatment facilities, for the implementation of nonpoint source pollution control programs, and for the development and implementation of estuary management programs. Once capitalized, each SRF is administered and operated by the state, however, states must meet certain federal requirements specified in EPA's SRF regulations and guidance. The SRF program is fashioned to allow states the maximum flexibility to design and operate SRFs to meet the particular needs and circumstances of each state.

Seven general types of financial assistance are authorized under SRFs. Using funds from an SRF, states may: (1) award loans at or below market interest rates or for zero interest, (2) purchase or refinance existing local debt obligations at or below market rates, (3) guarantee local debt obligations where such action would improve credit market access or reduce interest rates, (4) guarantee SRF debt obligations, that is, secure state bond issues provided that the proceeds are deposited in the SRF, (5) provide loan guarantees for "sub-state revolving funds," (6) earn interest on SRF accounts, and (7) support SRF administrative expenses.

SRFs are established primarily to award loans to local governments. Loan repayments provide a continuous source of capital to SRFs to make loans to additional recipients. Because states are responsible for determining interest rates for SRF loans, each state has the flexibility to set interest rates according to the financial needs of individual communities.

During implementation of the SRF program, EPA's Construction Grants program is being phased out. Funding for the Construction Grants program ended in FY 1990. The Water Quality Act of 1987 authorizes EPA's SRF Capitalization Grant program through 1994. Authorized appropriations for the SRF Capitalization Grant program were \$1.2 billion for both FY 1989 and FY 1990, \$2.4 billion for FY 1991, \$1.8 billion for FY 1992, \$1.2 billion for FY 1993, and \$600 million for FY 1994. In FY 1991, EPA allocated \$2 billion for SRF capitalization grants from the total Congressional appropriation for the SRF of \$2.1 billion (see Table A-1).

#### **Water and Waste Disposal Loan and Grant Program – Farmers Home Administration**

The Farmers Home Administration (FmHA) Water and Waste Disposal Loan and Grant Program provides financial assistance for the installation, repair, improvement, or expansion of water systems, wastewater collection and treatment systems, and solid waste disposal facilities.<sup>2</sup> The facility must primarily serve a rural area or communities of less than 10,000 population. Most of the funded projects involve water or wastewater systems. FmHA assistance is available to municipalities, counties, and other political subdivisions of a state, including special purpose districts and authorities, associations, cooperatives, and nonprofit organizations. Applicants must demonstrate that they are unable to finance the proposed project from their own resources or through commercial credit at reasonable rates and terms.

FmHA Water and Waste Disposal funds are allocated among the states based on each state's percentage of the total U.S. rural population and the state's percentage of the total U.S. rural population living below the poverty level. The program is administered primarily through FmHA's network of state and district offices. Criteria for awarding assistance takes explicit account of a community's financial capability in determining the type of assistance to be provided. The program has no matching requirements and provides three types of financial assistance: loans, grants, and loan guarantees.

**Table A-1. Spending History for Selected Federal Assistance Programs**

Spending by Federal Agency, for Selected Years from 1981-1990 (in millions of current dollars)					
Federal Agency	Obligations				Congressional Appropriation FY1991
	FY1981	FY1984	FY1987	FY1990	
<b>EPA:</b>					
Construction Grants	\$3,942	\$3,717	\$2,169	\$1,040	—
SRF Capitalization Grants	—	—	—	1,344	\$2,047
<b>FmHA:</b>					
Loans	750	270	330	350	500
Grants	210	104	118	212	300
Loan Guarantees	—	—	—	0	35
<b>EDA Grants*</b>	221	116	99	110	141
<b>HUD:</b>					
CDBG Small Cities Grants*	NA	910	742	838	944
<b>ARC Supplemental Grants*</b>	34	24	18	26	NA

**Notes:**

**EPA** — Data from EPA budget justifications for FY 1983, 1986, 1989, and 1992. Data for FY 1991 represents the SRF capitalization grant allocation from the total \$2.1 billion SRF appropriation, with the remainder allocated to several projects authorized under the Clean Water Act.

**FmHA** — Data provided by Nolan Kegley, Information Specialist, Legislative Affairs and Public Information Staff, FmHA.

**EDA** — Data provided by Margaret Boyd, Public Works Division, EDA.

**HUD** — Data for FY 1984 and 1987 from HUD's 1989 report to Congress on community development programs (includes state CDBG small cities grants only). Data for FY 1990 and 1991 from HUD's FY 1992 budget justification (includes state and HUD-administered CDBG small cities grants).

**ARC** — Data provided by Ann Anderson, Director of Public Affairs, ARC, from ARC annual reports.

\* Water and wastewater projects represent a portion of the total spending reported above.

NA = Data not available at the time of preparation.

FmHA provides loans at three interest rates: market-rate loans, intermediate-rate loans (i.e., halfway between 5 percent and the market rate), and 5 percent loans. Applicants can qualify for the 5 percent rate when the loan is needed to meet a health or sanitary standard and the median household income of the service area is below the poverty level. Applicants can qualify for the intermediate rate when the median household income of the service area is less than the nonmetropolitan median household income for the state. The maximum loan term is 40 years, however, the term may not exceed the useful life of the facility.

Grants are made only when necessary to reduce user charges to a reasonable level. To qualify for a grant of up to 75 percent of eligible project costs, the service area's median household income must be below the poverty level or below 80 percent of the state's nonmetropolitan median household income (whichever is higher). If the service area has a median household income between 80 and 100 percent of the state's nonmetropolitan median household income, a proposed project can qualify for a grant of up to 55 percent of eligible costs. Grant eligibility also depends on whether a project's annual debt service costs on a per-user basis exceeds a specified percentage of the median household income of the service area. These additional criteria are that annual debt service costs must exceed 0.5 percent of median household income to be eligible for the 75 percent grant and 1 percent of median household income to be eligible for the 55 percent grant.

A third source of financial assistance -- loan guarantees -- was added in FY1990. FmHA can guarantee third-party loans for between 80 and 90 percent of eligible project costs. Eligibility criteria are the same as for the loan program described above.

Throughout the 1980s, obligations for FmHA's loan program have varied between \$750 million for FY 1981 and \$270 million for FY 1984 (see Table A-1). Obligations were at a level of \$350 million in FY 1990. The Congressional appropriation for FY 1991 is \$500 million. FmHA's grant program obligations were \$104 million in FY 1984, but have since increased to as much as \$212 million in FY 1990. For FY 1991, the Congressional appropriation is \$300 million for the grant program. The loan guarantee program had a Congressional appropriation of \$75 million in its first year, FY 1990, but no loan guarantees were made under the Water and Waste Disposal Program. The Congressional appropriation for the loan guarantee program is \$35 million for FY 1991.

Title 23 of the Food, Agriculture, Conservation, and Trade Act of 1990 (i.e., the 1990 Farm Bill) created the Rural Development Administration (RDA) within the U.S. Department of Agriculture. The Act also requires the transfer of certain FmHA functions, including the Water and Waste Disposal Loan and Grant Program, to RDA. While planning currently is underway to establish the RDA, create a field structure, and ultimately transfer certain FmHA functions, the initial changes are not expected until after October 1, 1991. As the transfer of functions will be phased in and will take some time to complete, it is difficult to assess the impact of these changes until more information is available from the newly created RDA.

## **Public Works and Development Facilities Grant Program -- Economic Development Administration**

EDA awards grants to finance construction of public works and development facilities to promote long-term economic development and contribute to private-sector job creation and retention in areas experiencing severe economic distress. Water and wastewater treatment systems are among the types of projects eligible for grant assistance under EDA's Public Works and Development Facilities Grant Program.<sup>3</sup>

Eligible applicants include state and local governments as well as private or public nonprofit organizations or associations representing a redevelopment area or an EDA-designated Economic Development Center. Nonprofit applicants are urged to seek the cooperation and support of units of local government and, when deemed appropriate by EDA, to have the local government serve as co-applicant for EDA grant assistance.

On the average, EDA grants cover approximately 50 percent of project costs. Priority is given to applications that maximize the local share of project costs as evidence of firm local commitment to a proposed project. Areas experiencing severe economic distress are eligible for supplementary grant assistance of up to 80 percent of the project cost.

Obligations for EDA's public works program were \$221 million in FY 1981 and \$110 million in FY 1990 (see Table A-1). The Congressional appropriation for FY 1991 is \$141 million.

## **Community Development Block Grants/Small Cities Program -- Department of Housing and Urban Development**

HUD administers the Community Development Block Grants/Small Cities Program as one component of its Community Development Block Grant (CDBG) funds.<sup>4</sup> Small Cities funds can be used to provide grants for activities that benefit low- and moderate-income people and improve living conditions and economic opportunities in urban communities. The funds sometimes are used to construct public facilities, including water and sewer systems. States may elect to administer the Small Cities program and all states have done so except New York and Hawaii. HUD continues to administer the Small Cities program for those two states.

Each state that administers the Small Cities program receives a block grant, with funds allocated among the states using a needs-based formula that includes population as well as the extent of poverty and poor housing conditions. Most states administer this program through their departments of economic and community development. States distribute the funds to units of local government in areas that do not receive CDBG entitlement grants (eligibility for CDBG entitlement grants generally includes metropolitan cities of at least 50,000 population and urban counties of at least 200,000 population). Each state develops its own administrative procedures, funding priorities, and selection criteria, although HUD requires that at least 60 percent of the funds be used to benefit low- and moderate-income persons.



During the 1980s, obligations for CDBG small cities grants were as high as \$910 million in FY 1984 (see Table A-1). The Congressional appropriation for FY 1991 is \$944 million.

### **Partners for Environmental Progress Initiative -- U.S. Army Corps of Engineers**

The 1991 appropriations for the U.S. Army Corps of Engineers (Corps) authorized funds for a new initiative called "Partners for Environmental Progress" (PEP).<sup>5</sup> PEP is oriented to smaller communities or those without significant resources, and is intended to help such communities find ways to privatize environmental services. Currently, the primary focus of PEP is market feasibility studies. The Corps plans to issue guidance to its Divisions and District Offices regarding these market feasibility studies.

Market feasibility studies involve putting together a database so the private sector can evaluate the revenues and costs of providing particular environmental services to a community. With this information, a community will be prepared to talk to the private sector about privatization opportunities. The Corps is designing PEP to complement EPA's efforts to examine ways that the private sector can provide environmental services (i.e., EPA's Public-Private Partnerships initiative). PEP will get a community to the point where it is prepared to approach the private sector and EPA will help the community evaluate alternative ways that the private sector can participate in providing environmental services.

The Corps expects to spend around \$200,000 for PEP in FY 1991. The Corps presently plans to set a \$50,000 federal limit for each market feasibility study. Participating communities must provide a local share equal to 50 percent of the costs. In 1991, the Corps plans to ask participating communities to provide the 50 percent local share by performing in-kind services. The success of the pilot projects funded in 1991 will determine the future policy direction of the PEP initiative.

### **Appalachian Regional Commission Supplemental Grants**

The Appalachian Regional Commission (ARC) supplemental grants program awards grants to assist in improving the creation of jobs and private sector involvement and investment by funding development facilities. Eligible development facilities include water and wastewater systems as well as the development of industrial sites. Generally, these ARC grants are used to provide supplemental funds under other federal grant-in-aid programs. ARC supplemental grant funds are available only for projects that conform to state Appalachian development plans and only for specified Appalachian counties.

States, their subdivisions and instrumentalities, and private nonprofit agencies that apply through the state are eligible for the supplemental grants. The program awards grants of up to 50 percent of total project costs. In "distressed counties," grants may be awarded for up to 80 percent of total project costs. At least 20 percent of the eligible development costs must be obtained from sources other than the federal government.

Obligations for ARC supplemental grants were \$34 million in FY 1981 and fell to \$18 million in FY 1987 (see Table A-1). Obligations were \$26 million in FY 1990.

### **CoBank, the National Bank for Cooperatives**

CoBank, the National Bank for Cooperatives, was formed January 1, 1989, through the consolidation of 11 of the nation's 13 Banks for Cooperatives.<sup>6</sup> The federally chartered and regulated bank is part of the 74 year-old Farm Credit System. The Farm Credit System is a government-sponsored enterprise (GSE), much like the Federal National Mortgage Association (known as Fannie Mae). The special relationship of GSEs with the federal government allows the acquisition of funds at very competitive rates, allowing GSEs to offer loans at highly competitive interest rates. CoBank's funds come from the sale of Farm Credit System securities to investors in the national and international money markets.

CoBank is owned by approximately 2,400 U.S. agricultural cooperatives and rural utilities that also are its customers. CoBank's customer-owners capitalize the bank in providing equity capital based on borrowings. Loans also are made on a non-member, non-patronage basis. In 1990, CoBank held \$12.9 billion in assets and had a loan portfolio of over \$9 billion, of which about \$76 million represents loans to water systems. Because CoBank operates on a cooperative basis, the bank's earnings are returned to its customer-owners in the form of patronage refunds.

CoBank offers a variety of loan programs and financial services that are tailored to agricultural cooperatives and rural utility systems. CoBank makes intermediate and long-term loans for construction of new facilities, remodeling or expansion of existing facilities, and land or equipment purchases. These loans normally mature in up to 10 years, but may be written for up to 35 years. CoBank also makes seasonal loans to finance accounts receivables, inventories, and other short-term needs. These short-term loans usually mature within 12 to 18 months. Fixed and variable rates are available for both short-term and long-term financing.

The 1990 Farm Bill authorized CoBank to finance water and wastewater systems in communities under 20,000 population. Financing these water and wastewater systems is a natural extension of CoBank's rural utility business. CoBank evaluates these projects strictly on creditworthiness, as it does in all its loan programs. CoBank does not offer loans at subsidized interest rates, but as noted above, it does provide very competitive interest rates.

## NOTES

1. Office of Municipal Pollution Control, U.S. Environmental Protection Agency, *State Revolving Fund (SRF) Final Report to Congress: Financial Status and Operations of Water Pollution Control Revolving Funds* (May 1991 draft); and Office of Municipal Pollution Control, U.S. Environmental Protection Agency, *Initial Guidance for State Revolving Funds* (January 1988).
2. *1990 Catalog of Federal Domestic Assistance* (Washington, DC: U.S. Government Printing Office, 1990), 52-53; The Center for Community Change, *Searching for the Way that Works: An Analysis of FmHA Rural Development Policy and Implementation* (Washington, DC: The Aspen Institute, 1990); and U.S. General Accounting Office, *Rural Development: Federal Programs That Focus on Rural America and Its Economic Development*, GAO/RCED-89-56BR (January 1989), 148-149.
3. *1990 Catalog of Federal Domestic Assistance*, 129-130; and U.S. General Accounting Office, *Rural Development*, 166-167.
4. *1990 Catalog of Federal Domestic Assistance*, 523-525, 529-530; and U.S. Department of Housing and Urban Development, *1989 Annual Report to Congress on Community Development Programs* (April 1989), 25-42; and U.S. General Accounting Office, *Rural Development*, 185-186, 188-189.
5. Personal communication with Dave Brower, U.S. Army Corps of Engineers, April 11, 1991.
6. Personal communication with Dr. Richard Fenwick, Jr., Vice President and Corporate Economist, CoBank, March 28, 1991; and "CoBank 1990 Annual Report."

## **APPENDIX B**

### **CASE STUDY OF THE MAINE MUNICIPAL BOND BANK**

#### **BACKGROUND**

The Maine Municipal Bond Bank (MMBB) was created in 1972 to assist towns, cities, counties, school districts, and other special districts with the financing of their respective public improvements and other municipal purposes within the state. At this time, funds and accounts of the MMBB are divided into three groups – the General Tax-Exempt Fund Group (created in 1973), the Sewer and Water Fund Groups (created in 1990), and the Special Obligation Taxable Fund Group (created in 1990). The proceeds of bonds issued from the Sewer and Water Fund Groups are used to make loans to local governmental units to finance wastewater collection or treatment systems or water supply systems.

#### **OPERATION**

The MMBB issues bonds and notes in its own name and uses the sale proceeds to purchase the bonds and notes of local governmental units. Before the MMBB sells its bonds on the national market, it approves local bond applications and includes them in the bond bank's portfolio for an upcoming issue. At least twice a year, the MMBB will consolidate these local issues and market a bond issue of \$30 to 60 million or more. The MMBB usually wires bond proceeds to the participating local governmental units two weeks after a bond sale. Around 95 percent of the local governmental units that participate in the MMBB receive a lower interest rate than if they borrowed money independently.

The MMBB pays for all registration, trustee, and issuance fees for the participating governmental units, with two exceptions. The local governments must obtain a preliminary legal opinion from a recognized bond counsel prior to the final approval of their application and must pay their share of the sales commission on the MMBB bonds.

Operating funds for the MMBB have been raised through arbitrage earnings from the short-term investment of its bond proceeds prior to lending to the local governmental units and its debt service reserve fund. This source of funding, however, was severely restricted by changes in the 1986 Tax Reform Act that limit arbitrage earnings. Existing funds are expected to cover MMBB operating costs until 1994 or 1995. Subsequently, participating local governmental units will have to pay some issuance costs or other fees.

## **SECURITY PROVISIONS**

The MMBB has a package of security provisions that enables the bank to offer lower interest rates to participating local governmental units. These security provisions include:

- **Required Debt Service Reserve** – Money for this fund is included in the total amount of each and every MMBB issue, and by law must cover at least the highest amount of debt service payable in any future year.
- **Supplemental Reserve Fund** – MMBB has deposited over \$3.5 million in this fund and may appropriate money from this reserve to make up for capital deficiencies elsewhere.
- **"Moral Obligation of the State"** – The state legislature has the option to vote on whether to replenish MMBB's Required Debt Service Reserve if it falls below its minimum level.
- **"Intercept Mechanism"** – If a local governmental unit defaults on its debt service payments to the MMBB, the state treasurer can withhold funds otherwise earmarked for that governmental unit.
- **"Umbrella Issues"** – MMBB issues pooled bond issues that represent a diversified portfolio of projects, thereby reducing the risk of the bond issue and enabling the MMBB to achieve a higher credit rating.

## **PROFILE OF MMBB ACTIVITY**

**MMBB Credit Rating:** AA, AA    **State Credit Rating:** AAA, AA+    (S&P, Moody's)

**Debt Outstanding (from MMBB 1990 Financial Report):**

<b>General Tax-Exempt Fund Group:</b>	<b>\$1,042 million</b>
<b>Sewer and Water Fund Groups:</b>	<b>24 million</b>
<b>Special Obligation Taxable Fund Group:</b>	<b>4 million</b>

**Number of MMBB Issues (1973 - July 1990):** 35

**Types of Projects Funded (1980 - July 1990):**

32% for general municipal capital improvements  
11% for sewer and water projects  
57% for schools and municipal refinancing

## **PROFILE OF MMBB ACTIVITY (continued)**

**Types of Bonds Purchased:** 80% general obligation bonds  
20% revenue bonds

**Credit Ratings of Participating Local Governmental Units:** About 70% unrated

**Number of Loans Outstanding:** 752

**Average Amount Borrowed:** \$800,000 (a relatively small number of governmental units have borrowed over \$5 million)

**1990 Bond Issues:** MMBB raised over \$118 million, which provided low-cost capital to 23 towns, 20 school districts, and 19 other local governmental units.

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**Sources:** Personal communication with Robert Lenna, Executive Director, Maine Municipal Bond Bank, April 12, 1991; the "Maine Municipal Bond Bank 1990 Financial Report;" bond prospectuses and other materials provided by the Maine Municipal Bond Bank; and Joni L. Leithe, "State Bond Banks," *Credit Pooling to Finance Infrastructure: An Examination of State Bond Banks, State Revolving Funds, and Substate Credit Pools* (Government Finance Officers Association, September 1988), 37-38.

## **APPENDIX C**

### **SRF AFFORDABILITY ANALYSIS**

Appendix C provides an initial analysis of the affordability of SRF loan financing. The issues examined in this analysis are the effect of community size, SRF interest rate subsidies, extending the SRF loan term, and providing supplemental state grants.

#### **Effect of Community Size on Annual Household Costs**

Small communities have financial capability problems related simply to their size, because they cannot take advantage of economies of scale available to larger communities. The SRF provides financing for only the capital portion of a community's wastewater facility costs. One way to demonstrate the effect of community size on the ability to achieve economies of scale is to compare the annual capital costs of SRF financing on a per-household basis for different community sizes.<sup>1</sup> The average annual capital cost per household represents a household's proportional share of the annualized capital costs for a wastewater treatment facility. Table C-1 presents average annual capital costs per household for an SRF loan at 4 percent interest, for four community population sizes. The size of the community served by a facility has a substantial impact on annual capital costs per household. For a community of 1,000 population, the average annual capital cost per household is 1.6 times greater than for a community of 10,000 population and 3 times greater than for a community of 100,000 population.

Table C-1. Comparison of Average Annual Capital Cost per Household by  
Community Size (1989 \$)

Community Size	Average Annual Capital Cost per Household
	SRF Financing: 20-year loan at 4% interest
1,000	\$146
2,500	122
10,000	89
100,000	47

#### **Effect of Interest Rate Subsidies on Annual Household Costs**

The impact of providing an additional interest rate subsidy (i.e., beyond that required to offset the added project costs from federal requirements) to small communities can be demonstrated by comparing annual household costs for a wastewater treatment facility constructed with an SRF loan assuming different interest rates. For low-income small communities, low or zero interest rates can increase the affordability of SRF financing because the interest rate charged



on SRF loans can have a significant impact on user charges, as represented by total annual household costs.

Table C-2 demonstrates the impact of lowering the SRF interest rate (from 4 percent to 2 percent to zero percent) on annual capital costs and total annual costs per household, for smaller communities of three different sizes (1,000, 2,500, and 10,000 population). In this analysis, the total average annual cost per household represents a household's proportional share of both the annualized capital costs and the annual operation and maintenance (O&M) costs for a wastewater treatment facility. As shown in Table C-2, lowering the SRF interest rate can significantly reduce average annual capital costs per household, which reduces total annual household costs. However, the reduction in total annual household costs is partially offset by the fairly high proportion of annual costs (at least 60 percent) attributable to O&M.

**Table C-2. Annual Household Costs of SRF Financing (20-year loan) at Selected Interest Rates, by Community Size (1989 \$)**

<b>Community Size</b>	<b>SRF Interest Rate</b>	<b>Average Annual Capital Cost per Household</b>	<b>Average Annual Cost per Household (Capital + O&amp;M)</b>
1,000	4%	\$146	\$351
	2%	121	326
	0%	99	304
2,500	4%	\$122	\$306
	2%	101	285
	0%	83	267
10,000	4%	\$89	\$211
	2%	74	196
	0%	60	182

#### **Effect of Interest Rate Subsidies on Affordability**

While SRF interest rate subsidies can reduce annual household costs, examining the impact on annual household costs alone does not indicate whether such subsidies actually increase the affordability of wastewater treatment projects for small communities. To measure the financial impact on households, annual household costs must be compared to some measure of a

community's ability to pay for the wastewater treatment project. EPA has used a variety of affordability or ability-to-pay criteria to evaluate whether a community can pay for an environmental facility.<sup>2</sup>

One example of EPA's use of ability-to-pay criteria is the "Financial Capability Guidebook" developed in 1984 for the Construction Grants program. This guidebook includes a variety of measures to assess both the financial condition of a community and the financial impact on households for a wastewater treatment project. A number of financial ratios are used to evaluate the financial condition of a community. The financial impact on households is evaluated by expressing total annual household costs (including capital and O&M) as a percentage of a community's median household income.<sup>3</sup> The guidebook recommends using three threshold values to assess ability-to-pay for a wastewater treatment project (see Exhibit C-1). Where annual household costs as a percentage of median household income exceed the threshold value, the project is considered too costly relative to the community's ability to support the project.<sup>4</sup>

**Exhibit C-1. Affordability Criteria for Wastewater Treatment Projects from EPA's 1984 "Financial Capability Guidebook"**

Where a community's median household income (1980 \$) is:	Total annual household costs as a percentage of median household income should not exceed:
< \$10,000	1%
\$10,000 - 17,000	1.5%
> \$17,000	1.75%

While the above affordability criteria are tied to the Construction Grants program, the same concept could be used to evaluate the affordability of SRF loan financing. Exhibit C-2 presents the affordability criteria with median household income updated to 1989 dollars.<sup>5</sup>

**Exhibit C-2. Affordability Criteria for the Analysis of SRF Loan Financing**

Where a community's median household income (1989 \$) is:	Total annual household costs as a percentage of median household income should not exceed:
< \$15,000	1%
\$15,000 - 25,500	1.5%
> \$25,500	1.75%

Because income levels vary among regions of the country, between urban and rural areas, and between different communities of any given population size, affordability criteria based on median household income are best used on a community-specific basis. Nevertheless, the criteria in Exhibit C-2 may be used to illustrate the affordability of SRF loan financing for small communities as a whole. These affordability criteria, however, assess only the financial impact on households. Measures to evaluate the financial condition of a community are not included in this analysis.

For purposes of analysis, two levels of income were chosen to represent two types of small communities. The first income level is the U.S. median household income outside of metropolitan areas, which was selected to represent a more typical small community. The U.S. Bureau of the Census reported a 1989 median household income of \$22,400 outside of metropolitan areas (in contrast, the average 1989 median household income for the United States is \$28,900).<sup>6</sup> For the second income level, a median household income of \$17,000 (approximately 75 percent of the 1989 median household income outside of metropolitan areas) was selected to represent a low-income small community.

In Table C-3, the total average annual household costs from Table C-2 are expressed as a percentage of the two levels of median household income (\$22,400 and \$17,000) for the three small community population sizes (1,000, 2,500, and 10,000). For a median household income of \$22,400, applying the threshold value of 1.5 percent from Exhibit C-2 shows that lowering the SRF interest rate results in affordable financing in all but one case. The exception is a 4 percent SRF loan for a community of 1,000 population, which in this example represents the least interest rate subsidy for the smallest community. For a median household income of \$17,000, applying the threshold value of 1.5 percent indicates that the smaller low-income communities (1,000 and 2,500 population) would not find affordable financing using an SRF loan even at a zero percent rate. However, the SRF interest rate subsidy provides affordable financing for a community of 10,000 population. Depending on the population size and income level, some small communities will benefit from an additional SRF interest rate subsidy.

**Table C-3. Affordability of SRF Financing (20-year loan) at Selected Interest Rates, by Community Size (1989 \$)**

Community Size	SRF Interest Rate	Average Annual Cost per Household (Capital + O&M)	Annual Household Cost as a Percentage of Median Household Income: \$22,400	Annual Household Cost as a Percentage of Median Household Income: \$17,000
1,000	4%	\$351	1.6%	2.1%
	2%	326	1.5%	1.9%
	0%	304	1.4%	1.8%
2,500	4%	\$306	1.4%	1.8%
	2%	285	1.3%	1.7%
	0%	267	1.2%	1.6%
10,000	4%	\$211	0.9%	1.2%
	2%	196	0.9%	1.2%
	0%	182	0.8%	1.1%

#### **Effect of Extending the SRF Loan Term on Annual Household Costs and Affordability**

The effect of extending the SRF loan term to 30 years for a community of 2,500 population is illustrated in Table C-4. The 30-year loan term reduces annual capital costs per household by 21 to 34 percent from the capital costs of a 20-year SRF loan (see Table C-2). Applying the affordability criteria (see Exhibit C-2), for a community with a median household income of \$17,000, the 30-year loan is not affordable at 4 percent interest. However, the 30-year loan at 2 percent or zero percent interest would provide affordable financing for the low-income small community.

**Table C-4. Annual Household Costs and Affordability of SRF Financing with a 30-year Loan at Selected Interest Rates, for a Community of 2,500 Population (1989 \$)**

SRF Interest Rate	Capital Financing Costs	Total Financing Costs		
	Average Annual Capital Cost per Household	Average Annual Cost per Household (Capital + O&M)	Annual Household Cost as a Percentage of Median Household Income: \$22,400	Annual Household Cost as a Percentage of Median Household Income: \$17,000
4%	\$96	\$280	1.2%	1.6%
2%	74	258	1.2%	1.5%
0%	55	239	1.1%	1.4%

#### **Effect of Supplemental State Grants on Annual Household Costs**

The value of combining an SRF loan with a supplemental grant can be demonstrated by showing the effect on annual household costs. Table C-5 shows the impact of combining a supplemental state grant (at 15 percent or 50 percent of eligible costs) with an SRF loan at different interest rates (4 percent, 2 percent, or zero percent) for a community of 2,500 population. In this example, adding a supplemental state grant significantly reduces average annual capital costs per household. Because O&M costs are not affected by the additional level of subsidy provided by the grant, there is a less significant reduction in total annual household costs.

**Table C-5. Annual Household Costs of SRF Financing (20-year loan) with Supplemental State Grants, for a Community of 2,500 Population (1989 \$)**

Level of Grant Assistance	SRF Interest Rate	Average Annual Capital Costs per Household	Average Annual Costs per Household (Capital + O&M)
No state grant	4%	\$122	\$306
	2%	101	285
	0%	83	267
15% state grant	4%	\$104	\$288
	2%	86	270
	0%	70	255
50% state grant	4%	\$61	\$245
	2%	51	235
	0%	41	226

### **Effect of Supplemental State Grants on Affordability**

In Table C-6, the total average annual household costs for a community of 2,500 population are expressed as a percentage of the two levels of median household income (\$22,400 and \$17,000). For a median household income of \$17,000, applying the affordability criteria (see Exhibit C-2) indicates that the low-income small community would not be able to afford SRF financing at even a zero percent rate without additional financial assistance. With a supplemental 15 percent grant, the low-income small community would not find affordable financing except at a zero percent interest rate on the SRF loan. The supplemental 50 percent grant, however, provides affordable financing regardless of the various SRF interest rate subsidies used in this example. Packaging a subsidized SRF loan with a supplemental state grant can increase the affordability of a wastewater treatment project for low-income small communities.

**Table C-6. Affordability of SRF Financing (20-year loan) with Supplemental State Grants, for a Community of 2,500 Population (1989 \$)**

<b>Level of Grant Assistance</b>	<b>SRF Interest Rate</b>	<b>Average Annual Cost per Household (Capital + O&amp;M)</b>	<b>Annual Household Cost as a Percentage of Median Household Income: \$22,400</b>	<b>Annual Household Cost as a Percentage of Median Household Income: \$17,000</b>
<b>No state grant</b>	<b>4%</b>	<b>\$306</b>	<b>1.4%</b>	<b>1.8%</b>
	<b>2%</b>	<b>285</b>	<b>1.3%</b>	<b>1.7%</b>
	<b>0%</b>	<b>267</b>	<b>1.2%</b>	<b>1.6%</b>
<b>15% state grant</b>	<b>4%</b>	<b>\$288</b>	<b>1.3%</b>	<b>1.7%</b>
	<b>2%</b>	<b>270</b>	<b>1.2%</b>	<b>1.6%</b>
	<b>0%</b>	<b>255</b>	<b>1.1%</b>	<b>1.5%</b>
<b>50% state grant</b>	<b>4%</b>	<b>\$245</b>	<b>1.1%</b>	<b>1.4%</b>
	<b>2%</b>	<b>235</b>	<b>1.0%</b>	<b>1.4%</b>
	<b>0%</b>	<b>226</b>	<b>1.0%</b>	<b>1.3%</b>



## NOTES

1. See Office of Municipal Pollution Control, U.S. Environmental Protection Agency, *State Revolving Fund (SRF) Final Report to Congress: Financial Status and Operations of Water Pollution Control Revolving Funds* (May 1991 draft), 8-1 - 8-2, F-1 - F-6. Annual household costs were calculated using the "User Charge Calculation Model" from this report. The model is based on theoretical typical wastewater treatment facilities and calculates the capital costs of facility construction as well as operation and maintenance costs. Land costs that are ineligible under the SRF are not included. The model assumes that SRF financing covers 100 percent of total eligible costs under the SRF.
2. See "Summary of Affordability Criteria and Methods Used by EPA" (August 1, 1990 draft) prepared by Brett Snyder for the EPA Affordability Workgroup.
3. U.S. Environmental Protection Agency, "Financial Capability Guidebook" (1984), 41-45.
4. Using such affordability criteria does not ensure that all households in a community will have the ability to pay for a wastewater treatment project. Median household income represents the midpoint of community income (i.e., one-half of the community's households are below and one-half are above the median household income). For a given community, those households below the median household income will bear the greatest financial impacts. Households living on fixed incomes or at the poverty level will be most adversely affected.
5. The consumer price index was used to inflate EPA's 1980 median household income figures to 1989 dollars.
6. U.S. Bureau of the Census, *Money Income and Poverty Status in the United States, 1989*, Current Population Reports: Consumer Income, Series P-60, #168.

## **APPENDIX D SMALL COMMUNITY PROFILES**

### **WASTEWATER PROJECT**

**Oak Ridge, Oregon - Population 3,400**

The community's unemployment rate is 25 percent. Oak Ridge's major industry is timber, but the community sawmill has recently been shut down.

#### **Project**

Oak Ridge has an existing wastewater system that was built in the late 1960s. The community is currently planning to build a new facility in 1992. They are planning to construct a sequencing batch reactor (SBR) with a filtration system.

#### **Compliance Issues**

The Oregon Department of Environmental Quality has issued compliance orders for the community regarding its operation and discharge. The community is aware of the changes in regulations on BOD and efficiency removal and is supportive of building a new facility.

#### **Cost**

The new wastewater treatment facility will cost the community \$4 million. The community will use an EPA Construction Grant of \$2 million and they are trying to obtain CDBG funds for \$500,000. In addition, Oak Ridge will be using city revenue bonds totaling between \$1.5 million and \$2 million, depending on the level of CDBG funding.

#### **User Rates**

The current user rate for wastewater is \$7.50 for equivalent family unit (EFU). If the community is successful in receiving CDBG funding, the monthly user rate will be \$16.50. However, if the community does not receive CDBG funds, the monthly user rate will be \$18.50.

## **DRINKING WATER PROJECT**

**Joseph, Oregon - Population 1,150**

**The community is located in the upper northeastern corner of the state, just north of the Wallowa Mountains.**

### **Project**

**Joseph's drinking water comes from Wallowa Lake. The community is currently conducting a feasibility study to determine if a slow sand filtration system is viable for the community.**

### **Compliance Issues**

**Joseph needs to meet the filtration requirements under the Surface Water Treatment Rule. The community is unable to demonstrate that they have sufficient control over the watershed since the property surrounding the lake is privately owned. As a result, Joseph is examining the option of a slow sand filtration system to filter the surface water.**

### **Cost**

**The facility will cost the community \$2.5 million. The community has received combined grant and loan funds from FmHA totaling \$2,348,600. FmHA has granted the community \$1,213,600 and has lent Joseph an additional \$1,135,600 at 5 percent interest.**

### **User Rates**

**User rates recently doubled from \$4 to \$8 a month to pay for the repair and replacement of deteriorating water lines. Since the community received the FmHA funds, the monthly user rate will be \$18 a month. Without the FmHA financing, the user rates would have been \$40 a month.**

**APPENDIX E**  
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